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ABSTRACT

This issue of the IATUL (International Association of Technological University Libraries) Proceedings focuses on developments in Australian libraries. The first article, "University Librarianship in Australia" (D. H. Borchardt), reviews the growth of librarianship in Australia and examines some current issues. "Information Retrieval in Australia" (P. Judge) reviews the development of computerized information retrieval. "The Australian Bibliographic Network--ABN--History and Current Developments" (Judith A. D. Baskin) traces the history and current state of ABN. Three articles describe current issues in different types of libraries: "Current Issues in Australian Parliamentary Library Services" (R. L. Cope); "Government Special Libraries in Australia" (Heather Howard); and "Non-Government Special Libraries in Australia" (Joyce Korn). The final paper, "Collecting User Education Materials in Australia: The Role of USER (User Education Resources)" (Megan Lilly) provides an account of library cooperation in user education throughout Australia facilitated by the USER clearinghouse. (THC)

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Library Development:

Australia

edited by Nancy Fjällbrant

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FOREWORD

This issue of the IATUL Proceedings is devoted to developments in Australian libraries. The theme is presented in the first article which reviews the growth of librarianship in Australia and examines some current issues. This is followed by a review of the development of computerized information retrieval, and an article tracing the history and current state of ABN - the Australian Bibliographic Network. Three articles then describe current issues in different types of library: Australian parliamentary libraries, government special libraries and non-government special libraries. Finally there is an account of library cooperation in user education throughout Australia facilitated by the clearing house USER. The editor would like to thank Mr D.H. Borchardt, former Chief Librarian at La Trobe University, Bundoora, Victoria, and present editor of the journal 'Australian Academic and Research Libraries', for his assistance in obtaining material for this issue of the IATUL Proceedings.

Nancy Fjällbrant

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UNIVERSITY LIBRARIANSHIP IN AUSTRALIA
SOME CURRENT ISSUES

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Former Director, La Trobe University Library

1. Introduction

Libraries and library services do not exist in isolation. They are essentially social institutions created for the benefit of members of the society that supports them financially and they cannot be appreciated or evaluated without a brief account, at least, of their social setting.

Australia the island continent is about as large as the USA without Alaska : 7,682 million sq.km. In 1981 the population had reached just over 15 million, including approximately 160,000 Aborigines. Of the European population about 20 % were born outside Australia and about 3 % were non-English speaking on arrival. The number of non-European immigrants continues to remain small.[1]

School attendance in Australia is compulsory; in state schools it is secular and almost free. Classes at all levels are conducted in English (except of course foreign language classes), but the enormous influx of European migrants and their children has produced some problems in the schools. Especially in the inner suburbs of the large cities, children from traditionally inimical national and social groups are brought together for the first time and the process of adjustment is not always smooth and easy. Australia is today a multicultural society and though the Anglo Saxon strain dominates there are many minor and some major incidences of friction which will take a while before they are sorted out.

Post-secondary education is also free in most respects and offers a wide variety of choice but entrance regulations to the various types of institutions of higher or advanced education determine access. There are no private institutions of higher or advanced education. The nineteen universities and over 80 colleges of advanced education are all funded by the Commonwealth Government. The colleges vary greatly in size and their library services differ greatly.

It is contended by some that not all citizens have equal access to post-secondary education because, quite apart from some aptitude tests as may be applied to gain

entrance to institutions of tertiary education, there are financial burdens to be borne while studying, and rural residents encounter the obvious problems associated with living away from home. All but two of the Australian universities and some 15 colleges of advanced education are located in or near the capital cities.

Whether Australians read more than other people has not yet been subjected to statistical analysis, but British and North American publishers look upon this country as their principal export target. There is a sad gap in the social statistics maintained by the Australian Bureau of Statistics, in that there are no adequate data on book production, book imports, library services and the like. It is assumed that Australia's isolation from the mainstream of cultural events has prompted the high consumption of books and journals most of which are imported from the UK and the US. Australia's own publishing industry is relatively small and its owners have to put up with the fact that the home market is still hardly big enough for really economic print runs.

Against this background Australian universities have developed library services which in some respects are unique and in many others very good by world standards. The sad thing about them is that they are still relatively unknown, even though there exist several useful and reliable surveys of libraries and library services in this country, notably Bryan & Greenwood's 'Design for diversity',[2] Biskup & Goodman's 'Australian libraries',[3] and Borchardt & Horacek's 'Librarianship in Australia, New Zealand and Oceania'.[4] Two of these surveys appeared in 1975 and 1977 respectively; the third dated 1981 is, in spite of its intrinsic excellence, a rather thinly spread updated version of a book that first appeared in 1966 and again in 1975. There has been no other major review of the Australian library scene since that time though a good deal has happened in the library world in Australia during the past 5-7 years. In order to keep this review within the limits imposed by the editor I have chosen to restrict it to three specific topics: the library profession, bibliographic resources, and library cooperation among Australian university libraries. The place and role of special libraries and recent developments in bibliographic data retrieval are being covered by other contributors to this volume.

The dominant characteristics of the Australian setting are unquestionably the great sparsity of population (2 persons per sq. km.) and the great distances between the major settlements. These have imposed a pattern of library development which, though influenced by both British and North American models, has developed independently and produced features not found in other countries of the Anglo-Saxon world. Another factor that has greatly influenced Australian research libraries in particular is the enormous distance from the traditional sources of the country's cultural life: Europe and North America. As Australia is developing a noticeable cultural independence, the distance from London, Paris, New York and San Francisco is becoming less significant. This trend is not new but it has become increasingly pronounced during the past thirty years. It is

fostered by a variety of circumstances such as the constantly increasing cost of transport and communication and the sad fact that many technological advances are often nullified by socio-economic factors leading to industrial disputes which prevent the full and continuous exploitation of the sophisticated machinery now in use in the fields of communication engineering and transport equipment.

It needs to be added that Australia's political history has to date been singularly free from major internal upheavals and violent external influences. Since the beginning of European settlement in 1788, evolution has predominated over revolution, though some romantic historians and political advocates like to see world events reflected in the minor confrontations between groups of citizens and the executive arm of governments. Australia's staunch membership of the British Commonwealth of Nations and the support given to the United Kingdom in times of war has often been seen at home and abroad as a servile stance, but given the predominantly British background of Australia's population during the first 150 years after settlement, that attitude is scarcely surprising. It is undoubtedly changing and a more independent political line has become evident since World War II.

2. The profession

As a profession, librarianship has had a long and tedious struggle for recognition in Australia. The early years and pioneer work of the schools of librarianship are well described by Wilma Radford in the chapter "Educating and training staff" in 'Design for diversity'.[5] During the past ten years a few more schools of librarianship have been set up, including two in rural cities, and a second university based school at Monash University (Victoria) to join the once unique school of librarianship at the University of New South Wales. An attempt to set up a third university based school in Adelaide, South Australia, failed after a couple of years.

There exist now, according to the LAA's 'Handbook', no less than seventeen departments or schools of librarianship in Australia. These turned out approximately 500 graduates in 1981;[6] given that there are at present about 5500 qualified librarians in Australia in full or part-time employment, and that the attrition rate is low, there is a recognizable trend towards an over-supply of librarians, yet the number of professional staff in the academic libraries is not large. In the universities and colleges of advanced education there are in all slightly fewer than 1000 staff with professional qualifications, and probably another 3000-4000 others who work at para professional or clerical levels. The prevailing economic climate makes it difficult for academic institutions to improve their services by employing more qualified librarians.

The course offerings in those schools, as reflected in their calendars and prospectuses are, on the face of things, keeping up with modern developments in librarianship. There

is a clear evolution of subject contents to match current trends in library and information services but there appears to be no revolutionary approach in the curricula. The use of modern technological aids to bibliographic data retrieval is taught at every school and most have the equipment to allow students to gain at least minimal "hands-on" experience in this field. The traditonal subjects like "cat. & class." have given way to the more sonorous "bibliographic control" and there are the usual standard offerings in library administration. There appears to be little emphasis on research methodology - but this is understandable when it is remembered that the course handbooks deal primarily with the essential offerings for a first professional qualification. The two university based library schools provide a good deal more for students interested in advanced studies. A perceptive account of Australian standards for education for librarianship has recently been published by John Barclay,[7] who adds to his examination of the courses and conditions in librarianship departments the following note:

> "The study indicated that very little research work of a formal nature was being carried out in the Australian library schools in 1978 (27 % of library educators were reportedly involved)... Staff were not involved in research, nor were students being prepared for research in five first qualification programmes... Finally the published product of library school research was very slight".

There is no evidence that the situation has substantially improved during the past 3 or 4 years.

There are three types of courses leading to a qualification recognized by the LAA as conferring professional status on the holder:

(i) one-year diploma courses in librarianship for graduates of universities and colleges of advanced education;
(ii) three-year undergraduate courses which include librarianship and other academic subjects and lead to a diploma or degree in librarianship (variously styled);
(iii) four-year undergraduate courses similar to the three-year courses and at present offered by one institution only, the Royal Melbourne Institute of Technology.

In addition there are advanced courses at Masters' and PhD level.

Besides these professional courses, the LAA also concerns itself with certain lower level work in libraries and lends support and supervision to para-professional training. Those who do not have the requisite academic inclination or background but would nevertheless want to work in libraries may attend courses for Library Technicians which fit them for work under the supervision of professional staff in such areas as bibliografic searching, serials control, the various activities that go into interlibrary lending operations and, of course, the routine processes at the loans desks. Australian academic libraries have come

to make much use of library technicians to free professional staff for more sophisticated professional services. Library technicians tend to be a little cheaper than professional staff and certainly don't have the long range prospects of rising to senior administrative positions in the library hierarchy. Some university libraries have nevertheless made proper provision for the promotion of library technicians, recognizing that an experienced and capable person with that background may be more cost effective than some professional staff.

It is noteworthy that the LAA has set up a system of accreditation of librarianship courses in order to ensure that they met the academic and professional requirements of the Association, and only students from accredited courses are eligible for professional membership of the LAA. Unfortunately the Association has failed to follow this notion of professionalism through to its logical conclusion by insisting that the term "librarian" belongs to a registered profession. Anyone at all can call himself a librarian! On the other hand the academic qualifications set out in a university's or college's 'testamur' are unchallengeable evidence of having satisfactorily completed a course in the subject named in the document, so that those who receive a diploma in librarianship can claim that they possess qualifications hallowed by the reputation of the conferring institution. This is an important point which reduces the LAA's pretensions; more importantly, it militates against membership growth. There is no need to be a member of the Association to practice the profession. Not surprisingly, therefore, the LAA has found it difficult to persuade new recruits to the profession to join up. The fees for membership are stepped commensurately with the member's earnings and most young people believe them to be too high. Membership brings with it the 'Australian library journal' and the right to participate in the LAA's national sections, state branches and regional groups, but the meetings of state branches and of state based sectional groups rarely attract as many as 10 % of the membership.

All of this is probably universal - but the sad fact is that the only professional association in Australia is starved for funds and therefore cannot improve its public image or engage in serious lobbying, let alone fighting for librarianship.

The professional literature listed in the selective bibliography at the end of 'Design for diversity' runs to over 750 entries for the years 1886 to 1973. The total will now amount to well over one thousand. There exist three major journals for the profession: the 'Australian library journal', 'Australian academic and research libraries', and 'Australian special libraries news'. AARL is produced under the aegis of the University and College Libraries Section and like ASLN does not form part of a membership entitlement.

The Association also publishes a fortnightly news bulletin entitled INCITE. While designed to bring to the attention of all members important news items, dates for

meetings, and announcements from Headquarters, this tabloid occasionally also includes some minor articles on matters of general interest and some book reviews.

Besides, there are two more specialized journals: 'Cataloguing Australia', and 'LASIE: Information bulletin of the Library Automated Systems Information Exchange'. A number of branch and section or group newsletters and several house journals produced by enterprising libraries, e.g. the 'University of Adelaide Library news' and the La Trobe University Library's 'Newsletter', complete the picture of the periodical literature related directly or indirectly to Australian research libraries.

The five bigger journals appear to have no serious problem in obtaining copy and reports from overseas suggest that these journals are well received. Some articles have been incorporated in volumes of "Readings" but the incidence of Australian citations in the professional literature is still relatively slight even though the major journals are included in the North American and British indexing and abstracting services of the profession.

There exist few monographs on Australian librarianship. The want of longer studies of Australian librarianship problems and related topics is undoubtedly related to the lack of research leadership referred to above in the context of education for the profession; conference proceedings and papers are published frequently but these suffer, as they do all over the world, from uneven quality and often are poorly produced. Nevertheless, they also include some first class contributions to librarianship. An index of Conference papers for the years 1938-1977 has been produced by Janet Hine [8] but no provision has been made for keeping it up-to-date.

If Australian librarians have steered relatively clear of theoretical discussions of professional problems they have, appropriate to their national character, tackled vigorously and often successfully the practical issues of library services in Australia. A little later than in some other countries, Australia has experienced for the past 7 years a marked decline in the popularity stakes of higher education in general and in particular of universities as institutions aiming at the creation of intellectual elites and excellence per se. This has inevitably led to a reduction of government funding, since ministers of all political persuasions fail to see expenditure on university education as a great asset in the battle for votes. The decline in social status of the intellectual elite has been a long time coming, but come it had to as a result of the social revolt within the universities in the 60s and 70s, the products of which now occupy teaching posts right through the educational system where they continue to preach their disbelief in intellectual quality as a goal worth pursuing. Today, there is relative peace on almost every campus, a peace brought about largely by lack of economic security and a feeling of helplessness in the endeavours to revive intellectual debate over issues long dead.

How does this affect the libraries? Or does it not affect them at all? Of course it must affect them, if for no other reason than that a reduction in funding makes it more difficult for the library to meet the legitimate needs of the staff and students of the university. There are, after all, only two ways in which a library can reduce its activities, either it cuts down on acquisitions or it curbs its services to save staff time. A mixture of both is probably the most common response, and it will therefore be best to examine these responses first in terms of bibliographic resources and then to look at services.

3. Academic library resources

Among Harrison Bryan's numerous contributions to the analysis of statistical data published annually in the 'Supplement' to AARL, two recent articles contain particularly relevant and interesting comments on bibliographic resources.[9,10] Bryan stresses, and in the context of his political pleading he is justified, that Australian academic libraries are inadequately stocked when measured against North American standards. He invokes the Clapp-Jordan formula [11] and draws the conclusion that Australian university libraries are not buying enough books and do not receive enough journals. I cannot wholly subscribe to my friend's view. That Australian academic libraries are inadequately stocked is probably correct by purely quantitative criteria. It is doubtful, however, whether any quantitative measurement can be sufficiently reliable to allow us to make the kind of judgement that flows so readily from Bryan's papers.

A more reliable assessment would be based on a series of analyses of the subject collections that have been built up over the past 20 years. Except for a few isolated attempts [12,13] to come to grips with national or regional bibliographic resources in specific subject fields, neither academic librarians nor the teaching and research staff in universities have much of an idea of what resources are available. Australia is still waiting for the kind of holdings surveys which the National Library of Canada [14] has so successfully conducted for the research resources of that country. Dr Robert Downs, whose surveys of North American, British and Irish library resources are of great renown, also endeavoured to assess Australian and New Zealand bibliographic strengths. [15] If he was somewhat less successful in that enterprise it was largely due to the fact that Australian (and New Zealand) librarians have so far failed to publish accounts of their own holdings as has been the case elsewhere.

Some individual researchers and groups of scholars have attempted to compile union lists in their field of interest, particularly with respect to journal holdings, and many librarians have been involved in those projects. Important as these efforts are for individuals, they have not generally led to a better sharing of resources nor have they induced many libraries to use the results of such literature surveys to improve their holdings systematically.

Though full reference to that unique Australian institution, the Australian Advisory Council on Bibliographical Services (AACOBS), will be made later on, here attention is drawn to the particular section of its annual report [16] which is concerned with the nation's information resources. That section has contained, since 1975, an annual analysis, partly statistical, partly descriptive, of the strength and weakness of Australian library holdings, the effect of financial issues on the growth of the book stock and some reflections on our bibliographic resources in specific subject areas.

In a 'Report on research in universities' [17] prepared and published by the Federation of Australian University Staff Associations (FAUSA) in 1979, it is pointed out that Australian university libraries now contain adequate bibliographic resources to meet the needs of undergraduate students but fail to meet the needs of teaching staff because of their lack of resources to support advanced study and research. It must be difficult for any objective observer free from political bias to understand what that claim is meant to embrace. Researchers in the fields of the humanities and the social sciences will always be best advised to study region-related topics in that particular region. The student of renaissance Florence will have to go to Florence for any advanced study though there are large collections of printed documents and secondary sources in several Australian academic libraries. But by the same token anyone intending to study Australian history, society, etc. had better be clear that he cannot rely on the material in the Public Record Office or in the former Colonial Office Library and the holdings in Cambridge, Oxford and London, substantial as they are.

As for research in the pure and applied natural sciences, it cannot honestly be claimed that Australian library holdings are inadequate to meet the needs of most researchers. What are the criteria according to which our libraries are inadequate? It is obvious that a small library in isolation, such as those of the James Cook University of Northern Queensland in Townsville and of the two universities in Western Australia cannot be expected to hold more than a few hundred of the core journals in the natural sciences. With a total of over 3800 current serial subscriptions, the James Cook University Library is making very good provision, it would seem, for research in the disciplines taught, and better than many European and North American universities for an academic teaching staff of about 175 and a population of higher degree students of less than 300. There will of course be many references which have to be procured on interlibrary loan but that is one of the facts of life even in institutions with larger holdings. In the bibliographically wealthier centres - Brisbane, Sydney, Melbourne and Adelaide - there still remain many literature demands to be filled by interlibrary loan, maybe in different disciplines than is the case in Townsville but no library in the world can be expected to hold everything. The real trouble, then, lies with the high expectations of FAUSA and the lack of rationalization of academic programmes so that too many departments cast their nets too widely in order to snare student numbers. As a result libraries are obliged to serve too many interests instead of being able to concentrate in specialized fields.

A reduction in the acquisitions rate has been forced upon almost every Australian academic library during the past five years and the most drastic steps have had to be taken with regard to journal subscriptions. As from 1978 on, a deliberate weeding of subscriptions has cut approximately 5 % of total current journal titles from the holdings of Australian academic libraries. This is a large number, - about 7,000 titles on a conservative estimate - but well over 150,000 are still being received by the 19 universities. There is no evidence from the statistical data how many of the 7,000 titles cancelled have been duplicates in the cancelling institutions or, indeed, at the national level. We do know, however, that where there are two or more university libraries in one geographic area, consultations do take place to try and ensure that the same journal is not cancelled by everybody. These consultations often extend to institutions other than universities - the state libraries, the special libraries of the CSIRO network, the larger colleges of advanced education - and attention is also paid to the holdings of the National Library.

The Library holdings of the major colleges of advanced education amount in all to about two million volumes. There is no doubt that their main contribution to the national bibliographic resource lies not in the addition of unique titles but in the multiplication of standard texts and core journals thus providing access to these materials for a large number of tertiary students. Though this is the broad pattern, there are some exceptional areas in which the major colleges offer courses not available in other institutions of tertiary education; in support they foster special course related library materials.

4. Library management

I have somewhat extended this comment on library resources because, as I said earlier, there are but two ways in which a University Librarian can reduce library expenditure; either by reducing acquisitions or by reducing staff and services. It is unfortunately symptomatic of too many members of the teaching staff that they would rather see a reduction in library staff than a cancellation of a journal subscription as a consequence of which they may have to travel 20-30 km to another institution to consult it, or wait 15-20 working days for an inter-library loan to be supplied.

Reductions in staff are, unfortunately, being forced on the Australian academic libraries, whether they like it or not, and it is happening at a most unfortunate time. The pattern is obviously that universities have to reduce their overall employment level in order to keep within the government allocation and at the budget discussions deans fight as hard as university librarians for the preservation of their slice of the cake. While some 25 or more years ago Librarians would not have been allowed to look in to the meeting rooms where library budgets are discussed it is now wide practice to have the Librarian present at least to defend his portion or what he believes to be his portion.

There has, indeed, been a good deal of change in academic library management. The role of the library and of the library staff is now recognized as vital to the whole academic framework. Most of the nineteen university librarians and of the heads of college libraries have been members of the supreme academic boards of their institutions for a number of years, and this tradition is now well established though there are one or two institutions where this arrangement is not yet engraved on its statute book. Quite recently, critical voices have again been raised, expressing doubts of the need for the chief librarian's presence on the academic senate but it is unlikely that there will be a widespread reversion to the status quo ante when the library was run as a department or section of the Registrar's responsibilities.

The status of the chief librarian as the head of a major spending area and the growing complexity of library management has led to a noticeable devolution of responsibilities within the library itself. That trend has in turn given rise to new organizational structures and management techniques which have greatly helped in welding the senior professional staff of each institution into a professional management team. A quarter of a century ago, the chief librarian was occasionally included in the financial discussions of the university's top brass, and those who were employed in the library to work under the chief's direction, were expected to offer efficient but silent service. Those days are gone, however much some chief librarians young and old may regret it. It is now at least common to have regular meetings of the senior library staff, to appoint working parties of task forces and examine administrative problems in the library, particularly when such problems involve more than one of the quasi independent library divisions. Perhaps there is not so much a devolution of power as an evolution and growth, through delegation, of responsibilities and of accountability.

In Australia as elsewhere, this change depends to a large extent on the personalities involved. Some chief librarians protest loudly (too loudly?) their democratic approach to library management; woe betide those who happen not to conform with their democratic directions. Others declare lustily that they are in charge and threaten all potential young Turks with expulsion, but nevertheless listen carefully to the advice of those who are more knowledgeable in certain fields and shape their policy accordingly.

As a result of this new approach to library management, readers' needs tend to become earlier and better known. With the "removal" of the chief librarian into the purer air of higher administration, a lot of the comment on library services is evaluated and acted upon by those actually rendering the service: the reference librarians, the cataloguers and classifiers, the special collections curators. This trend has been going on for a long time in North America and Europe, but it has only recently become a discernible feature in Australian academic libraries.

Nor should it be overlooked that the university library committees help in this approach towards solving user problems. In some institutions library committees now include other members of the library staff beside the Chief Librarian, all contain student members, but few of these committees see their role as controlling the library or its staff. The Australian scene offers a wide conspectus of library committees, ranging from no library committee to at least one instance where the Chief Librarian was the statutory chairman of the committee. In the absence of a serious study of academic library management in Australia there is no means of judging preferences and success or failure of any of these management modes. The literature that emanates from North America on this topic does not gladden this writer's heart nor has it persuaded any Australian university library staff member to rush into print to produce similar kinds of analyses. Perhaps Australian academic librarians have too much to do to find time to contemplate their navel, or maybe we are satisfied to recognize that in the last resort library management depends on individuals, and while general principles are acknowledged greater emphasis is laid here on the personalities involved.

In spite of this seeming cult of the individual, Australian university librarians go in for quite a large measure of formal cooperation. More of this below; here it is pointed out that since the 1950s there have been regular (usually annual) meetings of all university librarians and since the end of the 1960s the title of Committee of Australian Librarians (CAUL) has been adopted by this gathering which has, however, no official standing vis-a-vis the university administrations. Though this state of affairs used to be considered a mild problem it has ceased to be an irritant and from time to time the university librarians have communicated as a body with the Australian Vice-Chancellors' Committee. The important points are that (a) the Vice-Chancellors are aware of the more or less united front of their librarians, (b) the librarians are ensuring a mutual awareness of their administrative problems. This latter objective is achieved fairly easily by a system of circular letters in which one member of the group advises all others of his concern with some topic to which some or all members of the group reply by sending at the same time copies of their reply to everybody. It is not claimed that this method of communication is new or unique, but the point is stressed that Australian university librarians are acting if not in unison then at least in a state of awareness of their colleagues' actions.

There is no other group of senior library administrators in Australia who have adopted that system of communication. The chief librarians of the colleges of advanced education formed themselves into an Association of Librarians of Colleges of Advanced Education (ALCAE) which, contrary to the practice of the university librarians, was from the beginning rather formally structured and succeeded in being recognized as a body corporate by the appropriate government committee responsible for financing and regulating the work of the colleges.

A brief side glance at the relationship between the government and the universities may help to explain certain broader issues. As was noted earlier, all tertiary education in Australia is financed by government. Since the mid 1970s the federal government has assumed full financial responsibilities for it, but the disbursement of funds is organised via the State Treasuries. There is no particularly good reason for this practice but there is the traditional concept of education being one of the prime responsibilities of the States in a federal system which has not left them very much else to care about deeply, transport and social welfare being two other important areas in which the States have it much their own way. However, the States' inability to cope adequately with the funding of higher education in the 1930s, the needs for speedy scientific and technical research and manpower training during the second world war, the pressure put on the universities in the post war reconstruction period, the growing demand for higher education among the new citizens and the result of the post war baby boom - it all added up to the urgent need for federal intervention which was firmly recommended in the Report of the inquiry into Australian universities in 1957.[18] Since then the Federal Government has increased its financial and general influence on tertiary education until in 1973 it was decided that the universities and colleges of advanced education should (a) be wholly funded from the federal purse, and (b) that all fees be abolished with the exception of student union dues and related charges.

A national committee whose name has changed with distressing frequency to reflect the winds of political change and which at the time of writing is styled Tertiary Education Commission, advises the Federal Government on the yearly budget for universities, colleges of advanced education and colleges of technical and further education. The Government is under no obligation to accept the TEC recommendations and in present years it has frequently been the case that the Government set the limits within which the TEC made its recommendations per sector and per institution.

The TEC's annual reports provide an insight of sorts into the politics of higher education in Australia. The decisions and recommendations are criticized, with monotonous regularity albeit not without cause, by the Australian Vice-Chancellors' Committee and the Federation of Australian University Staff Associations. The criticisms and complaints have not, in the past, produced one more penny of federal support.

Of particular importance in the context of this article is the reluctance of the TEC to recommend or make tied grants to the universities. For that reason there has never been a special allocation for libraries other than for library buildings. The AVCC has always fully supported the TEC in this matter. Consequently the annual allocations to individual institutions, based as they are on student related formulas the details of which are top secret, include funds for the university libraries; since the final allocation is inevitably less than the sum requested, each university librarian has to fight his own battle to get the maximum slice of the cake allotted to his university.

Finally, as part of management issues, it may be mentioned that library staff salaries are determined within each institution with the sole exception of the chief librarian's salary which is the same throughout Australia. It is equated with that of a professor in arts or science fields, and is unrelated to the size of the operation he has to administer. At the various professional levels below that of the chief librarian, universities have the option of using public service library salary scales or teaching staff salaries as the model. A few universities have achieved and maintained a salary structure which simply replicates that of the teaching staff: Professor - Associate Professor - Senior Lecturer - Lecturer - Senior Tutor - Tutor. Some universities have chosen a mixture. Broadly speaking the conditions of employment (salaries, leave, hours of duty, privileges) are excellent but it is worth remembering that the older generation of librarians had to fight to make it so. There is little danger at present for these conditions to deteriorate. The general appreciation of the library's role in the academic institutions is high and the senior library staff at least play a role on the campus that is not substantially different from that of the teaching and research staff.

5. Library services

If Australian university libraries are lacking in bibliographic resources, they try and compensate for this by making a special effort in educating their users in the proper and full utilization of the resources that are available.

First of all, however, it should be stressed that with the exception of small highly vulnerable collections - rare and early printed books, certain illustrated books, manuscripts, and similar classes of library materials - all Australian academic libraries allow free and open access to their holdings to all members of the academic community and to visiting scholars of all kinds. Every institution has a public catalogue in which the holdings of the whole university are recorded (i.e. the main public catalogue is a union catalogue of the bibliographic resources available on campus). Some libraries have already completed a large scale conversion of the traditional card catalogue to a microform catalogue, while some others are well on the way to have their holdings recorded on an online computer.

Generally speaking, there is not nearly enough financial support for the development of computer based services in Australian university libraries. In most institutions the library has to share computer facilities with the teaching departments or with the university administration, a state of affairs widely recognized as being inevitably detrimental to the library. However, one or two university libraries have put their meagre funds into mini computers for their in-house needs, especially the processing of MARC records, extramural lending and budget controls.

For most first year students, the university library presents a rather difficult hurdle. Not only are they unaccustomed to work independently but they tend to be baffled and confused when faced with complex retrieval aids and an overwhelmingly large collection of books and journals. In spite of grandiose claims by education departments, school library services are at best patchy and relatively few school leavers come to university or college with a clear notion of how to get the most out of university library services. All university libraries therefore do something to help freshers as well as advanced students.

Guided tours for small groups of freshers, self instructive audio visual aids, and in some instances talks to whole classes early in the first term or semester are designed to acquaint the newly enrolled students with the lay-out of the library, recommended means of borrowing, the reference services at their disposal. One of the purposes of these offerings is to help overcome the psychological barrier that exists in all institutions of tertiary education [19] between the new student and the library staff.

A large number of Australian academic libraries have gone a good deal further and have engaged specialist staff - library education officers or reader education librarians - to conduct seminars or tutorials on how to compile a literature survey, on bibliographic citation, and quite generally on 'how to find out'. These tutorials are arranged in consultation with the teaching staff and are always directly related to the discipline for which the students are enrolled. Frequently the teaching staff participate, either passively or actively. The tutorials vary in depth of coverage according to the students' academic maturity and need.

Articles on the theory and practice of reader education have featured frequently in the pages of 'Australian academic and research libraries' and in 1973 a special committee was formed by the University and College Libraries Section of the Library Association of Australia to examine the conditions under which reader education might best be performed.[20] Following the release of the committee's report a forum on reader education standards was organized in Melbourne in 1979 [21] which has had a long range influence on this particular form of library service.

The accessibility of computer-based bibliographic data retrieval services is changing academic reference services in Australia as has happened elsewhere. All Australian university libraries now have on-line information search facilities which enable them to interrogate the large subject oriented data bases in the USA and elsewhere. An Australian service known as AUSINET was established in 1977 and operated for four years as a resource sharing consortium, using the Australian Consolidated Industries Computer Services (ACICS) as a managing agent. For reasons which need not be explained here ACICS took over the consortium and now administers AUSINET as a

purely commercial enterprise, providing online access to Australian and foreign data banks.[22] Some data banks, however, are also accessible through the National Library, e.g. MEDLARS, or directly through MIDAS, Australia's Telecom's communication system.

Economic pressures on both the library and the student population have obliged academic libraries in Australia to make special provisions for heavily used materials, such as prescribed textbooks or journal articles. The usual practice is to set these aside, where funds permit in multiple copies, in a reserved books collection from which they may be borrowed for a few hours only. The size of these collections vary, and in some institutions they merely duplicate books and journals also available on open access. However necessary, these arrangements are labour intensive and therefore costly to administer. They tend to be welcomed by students not least because the need for part time staff provides an opportunity for some of them to earn a small amount of pocket money. However, there exist also a few attempts to solve this problem by setting up an "open reserve collection" consisting of multiple copies of undergraduate readings. This version does not require as much supervision but is protected by strict exit controls. While this solution requires a larger stock to satisfy student demand, it is less costly in staff.

Theft detection devices have now been installed in most university and large college libraries. The devices are well concealed in the books and journals and have certainly reduced the volume of book thefts. Unfortunately they have tended to increase damage to books and journals through mutilation. There appears to be little that can be done about it. To instal more stringent inspections at the library exits is very costly and may not be worth the cost of replacing damaged stock. It is a problem every librarian has to face, and if it were restricted to current imprints the solution might lie simply in weighing the cost of replacement against the cost of supervision. However, books more than three years old may already be difficult to procure and the selfishness and beastliness of one student may put his fellow students and future generations of students at risk. Australian students are probably no worse than those in other countries but acquisition librarians in Australia find it difficult to find replacement stock quite apart from the cost of the book itself.

Borrowing facilities are quite generous in most Australian academic libraries, both for students and for teaching staff. However, the economies which libraries have had to apply to all service points have tended to destroy the more human aspects of lending services. Those institutions which have computerized their lending processes have certainly impersonalized all communications with their borrowers, but many others, using their computer power, simply bar defaulting clients from borrowing more books until their slate has been wiped clean.

The revision of the Australian 'Copyright Act' has brought in its train a great deal of work for library staff. The provisions of the Act to protect authors' rights (and those of publishers, be it never forgotten) are such that all copying in libraries must now be recorded and is liable to inspection by appropriate public officers. The benefits of the technical revolution that made photocopying ever so easy are being lost because of the abuses that have affected publishers and authors. The situation has got quite out of hand in Australia and legal obstacles to legitimate demands by genuine scholars are making life difficult when technological advances should have made it easier. The saddest aspect of the copying syndrome is, however, that students place their faith in the copying machine instead of learning to read, abstract and digest the material they are supposed to be studying. Indirectly, this will have its effect on libraries because atrophy will make the students lose their ability to read.

A library's success lies, of course, in the satisfaction it produces to its readers. We know of no adequate procedure to establish quantitative measurements to this end - though every library has of course its share of permanently disgruntled clients and the smaller that number the greater, one might be tempted to believe, is that library's measure of reader satisfaction. The Australian university libraries have, however, built up a long series of statistical data which, to a point, provide some yard stick by which performance can be assessed. Since 1960, first in the 'News Sheet' of University and College Libraries Section of the LAA, and then in 'AARL',[23] the Section's official journal, fairly detailed statistical data have been published about Australian academic library services. Since 1974 the 'Statistical supplement' to 'AARL' carries also similar data for the colleges of advanced education.

6. Library cooperation

The geographic factors and the sparsity of population already referred to have of course influenced a trend towards cooperation which is further enhanced by a legendary national tradition of mutual help. Though Eoin Wilkinson begins his chapter on this topic in 'Design for diversity' with: "It should be clearly stated at the outset that there is no comprehensive or general system of cooperation amongst Australian libraries",[24] he managed nevertheless to write some 30 pages on library cooperation in Australia, systematic or not; one may conclude perhaps, therefore, that he had in mind a somewhat idealistic scheme which he failed to find in practice. I would not deny that that view is correct, but as I have just noted, there have been scores of cooperative efforts, many of which are quite successful, to which Wilkinson refers in some detail. Since then, i.e. during the past seven years or so, there have been others and as we are learning from experience, there are fewer failures and at the LAA-NZLA Joint Conference in Christchurch, New Zealand, 1981, Eric Wainright presented a very thorough overview of academic library cooperation in Australia.[25]

Reference has already been made to CAUL and ALCAE in the section on library management, where the importance of these groups warranted their mention. CAUL in particular has been seen by many as a strong and homogeneous group. In effect, while having developed a system of perpetual communication, there are few issues on which CAUL could legitimately claim to be speaking with one voice. This has been shown often, and recorded, in the annals of AACOBS, an organization which rightly deserves pride of place in this survey even though it is not primarily an organ of the academic libraries. Moreover it is at the moment of writing going through some transformation which will have a profound influence on its future effectiveness.

AACOBS stands for Australian Advisory Council on Bibliographical Services. It has been justifiably claimed that AACOBS is a unique organization in the world of libraries and that its survival for 21 years as a loose body corporate, without a constitution and without proper regulations except those of precedent, is as close to a miracle as can be found in a professional world. AACOBS was created in 1956 at a conference of national and state library authorities and three university representatives. In 1960 it was enlarged to include all universities and in later years representatives of the colleges of advanced education, public and special libraries and some other organizations concerned with library and information services joined in the annual meetings of the Council. Perhaps the most important characteristic of the Council is that its membership consists of institutions. There are no personal professional members though from time to time leading lay members of the Australian community have been invited to join and the Chairman has been a layman throughout the history of AACOBS.

It would take too much space to present here a history of AACOBS; a backward glance appeared in 1980 [26] and here it must suffice to offer a thumb nail sketch of achievements as evidence of library cooperation. The objectives of AACOBS are to encourage the development and use of Australia's library and information handling generally. Until recently the financial support to carry out these objectives came from the National Library of Australia and the major libraries, represented automatically on the Council: the state and university libraries, the CSIRO library net work. During the late 70s the National Library reduced its financial support and it became increasingly difficult for AACOBS to function. As a consequence, the nature of membership was changed to a subscription basis and a constitution was adopted in 1981 which led to a new structure of the national committee, laid a greater onus on the regional (state based) committees, and prompted the reorganization of the electoral process for the national committees. The effect of these changes will become apparent in the next two years. It will be a very different AACOBS than it has been, democratic procedures will be replacing the hereditary system and new issues and priorities will be dominating the discussion - until a new revolution will set up even newer gods.

The achievements of AACOBS are due, in the main, to the establishment of highly competent Working Parties and Task Forces; the former have a fairly permanent status while the latter are set up to deal with a specific assignment on the completion of which they are disbanded. Three Working Parties in particular have made major and far reaching contributions to library and information services in Australia: the Working Party on Bibliography, the Working Party on Information Resources, and the Working Party on Systems and Communications. Among major task forces were those on Book Resources, on Interlibrary Loans, and on Statistics.

Since 1970, AACOBS has issued an annual report [16] which is appropriately entitled 'Library services for Australia: the work of AACOBS', and from 1975 on these reports contain detailed state-of-the-art surveys by the AACOBS Working Parties.

Thanks to AACOBS, the following major cooperative achievements have been carried through: the National Union Catalogue of Monographs, the union list of Serials in Australian Libraries Social Sciences and Humanities, the Union List of Newspapers in Australian libraries, the acceptance of an inter-library loan code and a standard inter-library loan form.

In all of these activities the university libraries have born a heavy burden of involvement. While the funding of actual expences for these cooperative activities has stemmed mainly from the National Library, the universities have been able to make staff available and bear the cost of some of the supportive and ancillary actions which help to bring projects to a satisfactory conclusion.

The persistent problem in cooperative effort is the absence of direct federal government support for library and information services. There have been attempts over a long period of years to overcome government unwillingness to see such services as being vital to the growth and development of science, civilization and culture, but to date no political party has taken up the challenge and committed itself financially to the objective of AACOBS. The National Library Act also refers to cooperation, but the government of the day has continued to stay clear of any additional funding to that end. Late in 1981, the Federal Government and the State Governments agreed to establish a special national committee to deal with the adoption and implications of a national information policy. The Committee became known as the Australian Library and Information Council (ALIC) and its composition - federal and state ministers responsible for library and information services plus the national and state librarians and some representation from the universities - was to ensure that it had some influence. However, the Federal Government firmly asserted that ALIC would have no funds and would not be able to commit the Federal Government to any expenditure. ALIC will, it is hoped, call on AACOBS for expert advice on projects and undertakings that fall properly into its ambit, undefined as this still is.

The advent and victorious invasion of the calm and dignified bibliographic towers of academia by the computer has unquestionably speeded the acceptance of cooperative measures. Computer based technology has indeed become the most suitable medium for the execution of cooperative projects. Some claim that it has become our master - and a sorcerer at that. There are three areas of library services that spring immediately to mind as having been improved by cooperative approaches through computer technology: cataloguing, bibliographic control and lending services.

The adoption of the MARC format for cataloguing in Australia and the establishment of a cataloguing data delivery system, AMRS, by the National Library has made it possible to reduce cataloguing costs in individual libraries by acquiring such data and transforming them without adaptation into catalogue cards or COM catalogues. This basic system has been further developed into the Australian Bibliographic Network (ABN) about which Judith Baskin has written in her contribution to this symposium. Individual libraries as well as consortia are getting ready to link up with ABN and the Barr Smith Library of the University of Adelaide has been a pioneer in this field.

The establishment, in 1980, of an Australian Committee on Cataloguing is further evidence of our endeavour to stand united in this field where our own input into international meetings should be based on consensus amongst Australian libraries and librarians. The ACOC resulted from pressures being brought to bear on two existing committees to unite under the aegis of AACOBS. The preliminary discussion of the proposed fusion was interesting in that it brought to the fore a clash of interests between the professional cataloguers whose organization was based on the LAA, and the institutional interests, represented by AACOBS, whose representatives were strongly motivated by the notion that cataloguing is too expensive an activity to leave it to the professionals. Quite obviously, the new ACOC will have some influence on ABN and appropriately, it is comprised on NLA, AACOBS and LAA representatives.

The effect of the ABN on Australia's most important tool for library cooperation, NUCOM (National Union Catalogue of Monographs) will be tremendous and even at this early stage of its development the impact is noticeable. The contributions by NUCOM to the interlibrary loan traffic has been enormous but lack of staff at the NLA prevented filing from being kept up-to-date. The manually compiled microfilm version of NUCOM is now being closed off, and the computer based data file of ABN will replace it gradually. To the university libraries who are the largest net lenders this will be of considerable importance since borrowing libraries will be able to identify more easily the presence of desired titles in geographically close locations.

The cost of interlibrary lending has been of great concern to the university libraries and discussions on the possibilities of cost recovery have been a hardy annual at CAUL

meetings and in CAUL correspondence. Threats of unilateral action in the form of charging for interlibrary loans have frightened the whole academic community and the Australian Vice-Chancellors' Committee went so far as to advise CAUL that it would not support such proposals for the time being. Unfortunately, the AVCC did not make practical alternative suggestions likely to relieve the burden of interlibrary loans in the net lending institutions. The size of the problem is recorded in the annual 'Statistical supplement' to 'AARL'[23] where it is noted that, in 1980, over 215,999 interlibrary loan requests were met by the university libraries alone. However, the AVCC supported the proposal to mount a proper investigation into the interlibrary loan traffic; a task force has been set up under the leadership of Professor M. Weinstock and funded by the Federal Government through the TEC. The report of this task force is still being eagerly awaited but there are references to its work in several journals and in a paper presented to a national conference entitled 'Interlending in the 80s'.[27]

If library cooperation at the national level has been neither as extensive nor as intensive as some would have liked, there has been a considerable increase at the regional and local level. At the national level the obvious difficulty is that the more libraries and librarians are intending or are invited to participate, the more compromise arrangements have to be made. Smaller will tend to be less complex, maybe even more beautiful. Some very successful steps have been taken to establish consortia of academic libraries, sometimes including other types of libraries, within state or metropolitan boundaries. CAVAL (Cooperative Action by Victorian Academic Libraries) is an example of this cooperation, and besides CAVAL there are such organizations as CLANN (College Libraries Activity Network in New South Wales) and SAENET (South Australian Advanced Education Computer Network).

Another example of a cooperative venture is the adoption of the LIBS 100 system to control library lending in three Melbourne institutions, the University of Melbourne, the Royal Melbourne Institute of Technology, and the State College (a teacher education college).[28] While this co-operative enterprise has a great deal of intrinsic merit, one of its unstated virtues is that it is hospitable to the addition of more institutions.

Various efforts have been made to develop some type of collection development plans but Australian librarians have done no better in this respect than have our colleagues in other countries. The problem is particularly well illustrated by the national concern for a comprehensive coverage of those journals on which academic research so heavily depends. The general malaise about library funding is affecting all libraries from the NLA down to the smallest municipal public library, but the problems caused differ according to type and size of institution. For the maintenance and development of Australia's research potential it is of paramount importance that adequate bibliographic resources are available.

There has been very strong support among some university librarians for the establishment of a national lending library (NLL) on the model of the BLL at Boston Spa. The demand for this solution to Australia's alleged shortage of bibliographic resources to support scientific and technical research has come mainly from the several universities and research institutions situated outside the metropolitan bibliographic 'fleshpots' because the existing interlibrary loans system based on the large university libraries is allegedly about to break down.

In this context national cooperation takes on yet another hue, and it is useful to remind ourselves that the National Library's holdings of about 94,000 current serials represents a vital back up for the academic libraries. The National Library's serials holdings have, according to its own report,[29] doubled between 1970 and 1980; between 1977 and 1980 no less than 8,000 new serial subscriptions were added but between 1980 and 1981 just over 3,000 subscriptions were cancelled. Is anyone surprised that the cancellations have been given much publicity but the retention of so impressive an array as 94,000 serials has not rated even a one-hand clapping?

Not surprisingly, the most heavily used providers of loans - the net lenders - support the demand for an Australian NLL. Nevertheless, the overall support is little more than lukewarm. The major arguments advanced against a central service are the traditional fear of Canberra as a power base, a niggling suspicion that an NLL would be an easy target for cuts in manpower and purchasing funds when governments want to save money, the persistent criticisms of the NLA's performance and the fear that an NLL may follow a similar pattern of uneven performance. In addition it is often claimed that the distances between institutions and the quality of postal services hamper postal communications to such an extent that user demand is dampened at the source. The arguments in favour of an NLL have been well presented by Maurice Line on his visits to Australia and for a while the NLA assumed the role of a national lending library through its ANSTEL division (Australian National Scientific and Technical Library). ANSTEL was set up in 1979 and became one of three almost independent library services within the NLA. It was abolished in 1981 - but this is a story that should be told elsewhere, even though the structure and performance of the NLA is of vital importance to the Australian library and information services community.

7. Conclusion

This brief survey concentrates on continuous issues in Australian university libraries, with a few side glances at other institutions of tertiary education, notably the colleges. Inevitably there remain many problem areas which have not been touched; many of these are of a specifically Australian character that their discussion in this context would be of little interest to readers. Some of these untouched problem areas are not insignificant to those who have to suffer them - but librarians are singularly used to suffer the arrows of ill fortune, even if not always silently.

The topics touched are, I hope, of universal interest: the profession in Australia, bibliographic resources in the New World, library management in isolation against a political background where no holds are barred, library services without tradition, library cooperation as an alternative to bibliographic wealth.

Any reader who casts this survey aside as a moaning and negative winge has failed to get the message. There is nothing wrong, nothing at all, with Australian academic librarianship; it is merely that the good is not good enough. The vast majority of Australian university library staff are a dedicated, hard working and fairly shrewd lot. They are as good a group of about 1000 professionals as can be found anywhere in the world.

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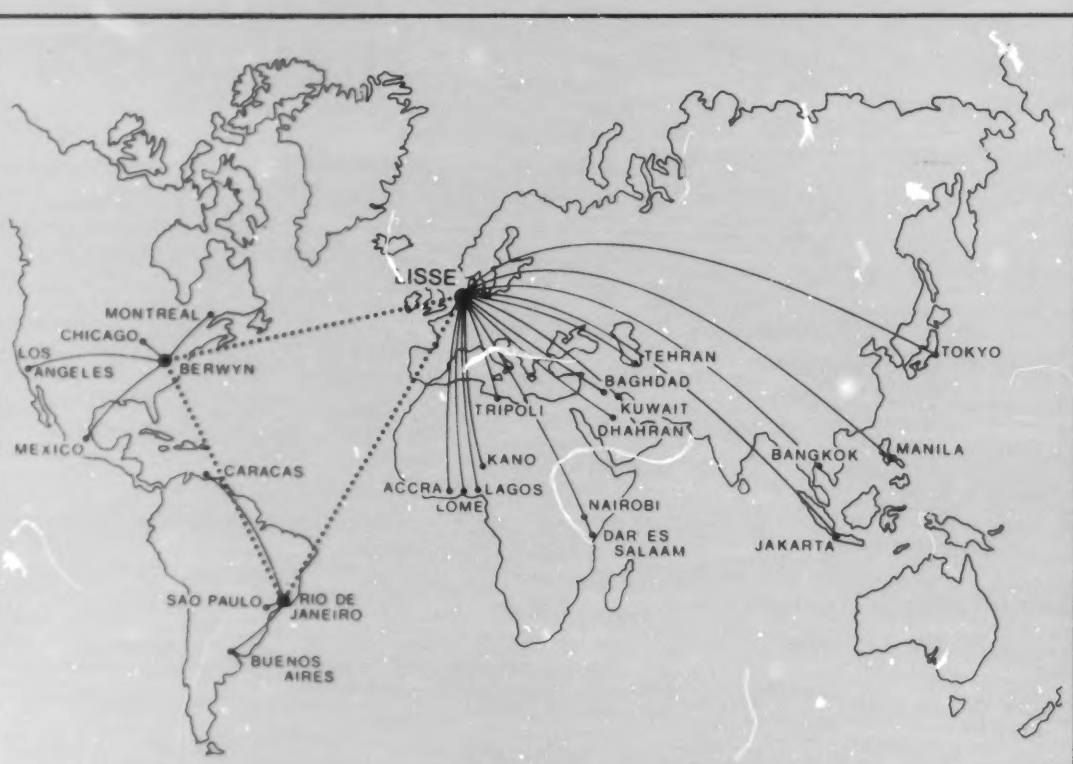

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INFORMATION RETRIEVAL IN AUSTRALIA

P. Judge

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Dickson, Australia

"Marshall'd in order, for the day of Intellectual Battle"
William Blake, Vala

Introduction

This paper was presented in November 1981 to a conference of the Victorian Association for Library Automation (VALA, hence the quotation from Blake, which seemed a pretty good image of a data base!). The audience of professional librarians and information scientists were all familiar with the local acronyms, but the non-Australian reader will find a glossary of these at the end.

It may be helpful to note that most publicly accessible computerized information activity in Australia still takes place in libraries or is closely associated with the libraries of large organizations like CSIRO, the Australian Mineral Foundation or the Australian Road Research Board. The Information Science Section of the Library Association of Australia has a membership of over 800. However, other kinds of body are now developing computer information retrieval services, and this trend is likely to continue as a new information industry grows.

Information retrieval began in the early 70's in CSIRO and the National Library of Australia with batch searching of tapes provided by US abstracting services. Interest was fostered by a report to the Council of the National Library by the Scientific and Technical Information Services Enquiry Committee, the "STISEC Report", which launched the discussion on Information Policy in Australia (which still continues...). The retrieval services really took off when they became readily available on-line, as described below, in the period 1977-79.

The largest single influence in this dramatic surge of use (see Figure 1) has been MIDAS, the "Multimode International Data Acquisition Service", started by the Australian Overseas Telecommunications Commission. MIDAS is a packet-switched link between the

Australian Telecom network and networks in a number of other countries in North America and Europe. Its introduction brought the communication costs of direct interrogation of US data bases down from around $3 a minute to 20 cents a minute plus 60 cents per kilocharacter transmitted, and also provided tariff-free dialling from anywhere in Australia to the MIDAS centre in Sydney.

With this brief background, it will not seem surprising that I saw my "keynote" speech in the key of D for Development. The D also stood for Diversity: an interesting variety of services is developing. But there are some questions: that D could also stand for a not-unexpected Dependance on overseas services, which might inhibit the growth of essential indexing and abstracting activities based on locally arising information. Fortunately there are indications that this inhibition is not being experienced.

Now let me return to the VALA paper as it was presented...

Australia is seeing some of the fastest growth in information use per capita in the world, and for a country which has to import 98 1/2 % of its scientific and technical information, that is a Necessary and a Good Thing. This growth in use has been accompanied by an immense broadening of opportunity for information users, and by the beginnings of a domestic information industry. While our domestic data bases are still putting down their roots, we are being nourished by the big US and European systems through the packet-switched umbilical cord of MIDAS*, which makes good economic sense. But what in fact are we getting? What are we giving in return? How does our experience compare with other countries?

As we were

To see where we are going, it is helpful to glance back for a moment, and in this perspective it is salutary to return to the two papers by Alex Robertson[1, 2] in the Proceedings of the RACI, in mid-'75 and early '76, which described the information scene as it then was. STISEC had just reported; "ALBIS" was the newest acronym; ANSTEL had been launched, and was providing SDI services on MEDLARS, BA Previews, Science Citation Index, and on some files in the British Library. ANSOL was searching ERIC and the Social Sciences Citation Index. CSIRO offered SDI services on CA Condensates, BA Previews, INSPEC, Food Science and Technology Abstracts, Selected Water Resources Abstracts, and CAIN (which later became AGRICOLA for purely superstitious reasons). CSIRO had also opened a terminal in the Australian embassy in Washington to provide retrospective searches on a range of US data bases, which ANSTEL would shortly also provide by direct dialling across the Pacific. The Department of Manufacturing Industry gave services on Compendex and NTIS. Some big firms were already dialling California direct, to interrogate Lockheed.

* See glossary of acronyms at end.

The argument on whether to charge, and how much, was already in full cry: CSIRO recovered its computer costs but absorbed its tape charges; the National Library started by offering all SDI services free, "within the limits of the available budget", which led to awkwardnesses of arbitrary acceptance and rejection of applications for services, but later imposed a standard charge for everything except MEDLARS (then, as now, the Department of Health made its computer available gratis for this service); the Department of Manufacturing Industry made no charges within its Department, but outside users had to pay. In practice, there were not many outside users.

Then, as now, MEDLARS was the most popular data base: in early '76 the situation was

	SDI	Retrospective
NLA Services		
MEDLARS	2 200	3 000 p.a.
BA Previews	570	
SCI	100 (on pilot trial)	
CSIRO Services	200 CSIRO users	
	100 external	

The costs were largely covered by the organizations offering the services, and still the users grumbled about the charges. At this stage it was all an enormous act of faith by both the suppliers and the users - although where the latter were converted to SDI their enthusiasm was contagious.

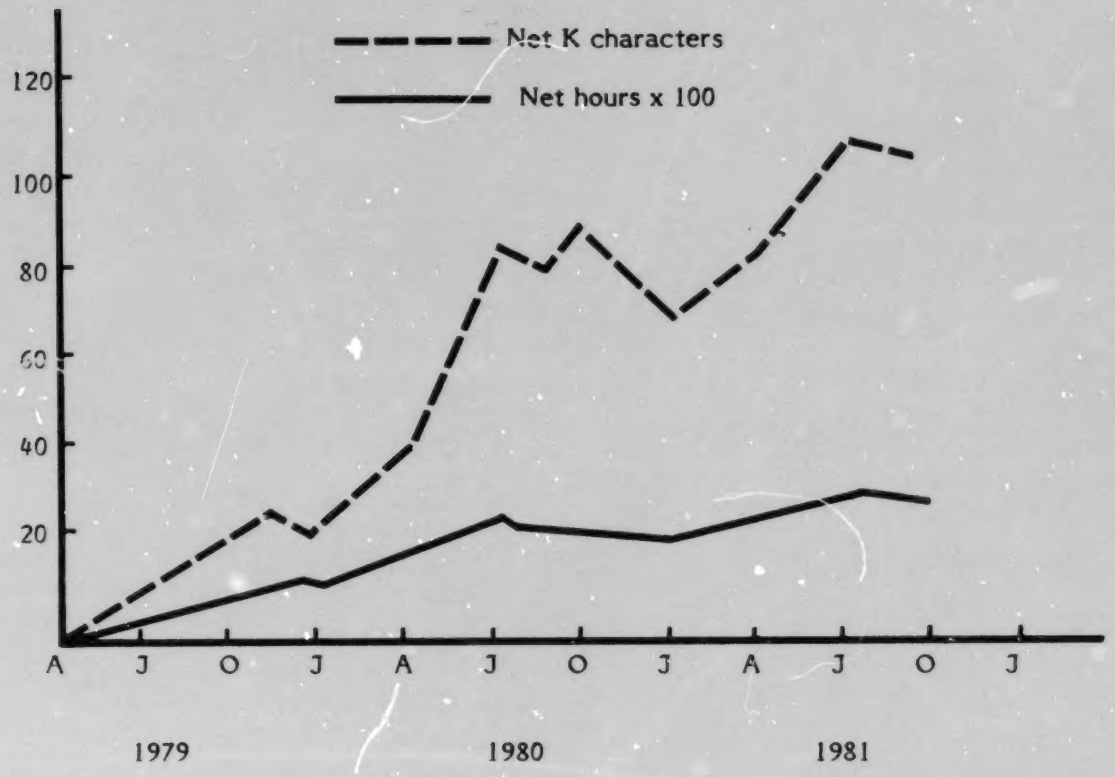
Development and Diversity

Six years later, the situation is very different. The speed at which on-line working has taken over is almost unbelievable. In '76-'77 MEDLARS had about 1 000 connect-hours, for 4 000 retrospective searches (already more than the beginning-of-the-year estimate reported by Alex Robertson) and 1 000 SDI profiles - less than Alex's figure, but that may have been an underestimate (including the BIOSIS searches) of the number of separate batch SDI runs. In 1981,[3] the current figures for MEDLINE (including the BIOSIS searches) are 15 000 connect hours, 70 000 retrospective searches, up by a factor of 15, and 1 646 SDI profiles. In '76-'77 some 19 search analysts were trained by the National Library for MEDLARS searching; in '80-'81, 166. In that time, the number of biomedical network centres has gone up from 11 to 118.

Elsewhere, the situation is similar. AUSINET was launched by a consortium of 11 users in late 1977: it currently has 177 registered users, and the connect time has gone up from 3 793 hours in 1978 to around 5 400 in 1980. (1981 looks like being similar). MIDAS began trading in April 1979. It has shown a growth of 8-10 % per month (see Figure 1) and is also building up its corporate use, in banking and finance, commodity trading, mining,

computer service bureaux, and so on. In the first six months of 1981 the numbers of registered corporate users increased by 50 %, from 205 to 310, while the "information retrieval" users went up by 25 % from 375 to 475; total MIDAS registered users passed the 1000 mark a few days ago, I suspect (the figure given to me in late October was 997!). Connect hours have gone up from 2000 per month to 3000 during 1981, although only part of this - perhaps half - is for information retrieval.

Fig. 1 MIDAS Billable Traffic
(Source: see Ref. 2)



As a direct result of MIDAS, most of the overseas tapes which were then being bought have been discontinued: Chemical Abstracts, INSPEC, Science Citation Index, Social Sciences Citation Index, ERIC, AGRICOLA, ... have all gone. MEDLINE and BA Previews remain, and the Department of Defence may continue to run NTIS internally, having taken it and COMPENDEX over from the old Department of Productivity.

The diversity of services offered is part of the on-line breakthrough that MIDAS users are exploiting: a recent hand-out emphasises this under eight headings:

	No. of examples given	
Information retrieval	10	(but these 10 hosts will carry hundreds of databases)
Cash management	4	
Electronic mail	5	
Engineering computing services	6	
Commodities, future, stock	7	
Computer conferencing	5	
General business services	6	
Financial modelling	6	

While MIDAS is offering these services on hosts in North America or Europe, there are other activities and other networks available to Australian users. One of these is the AAP-Reuters MONITOR system which gives on-line, commercial information world-wide: the best prices for your gold or Swiss francs in Hong Kong or New York, for example. In early 1979 MONITOR was serving 3 200 banks, investment companies and other businesses in 34 countries. It now serves 9 000 subscribers with 60 000 terminals in 55 countries, including just under 40 subscribers in Australia. It is also diversifying over here: its VIDEOMASTER service has 300 subscribers receiving real-time trading information from the five main Australian stock exchanges and the Sydney Futures Exchange. "Domestic MONITOR" is a fairly new product catering to the domestic money rates market with 60 subscribers among Australian trading and merchant banks and financial institutions. In January it will open its "Multi Quote Terminal (MQT)" service, which will let users compare the current values of stocks and commodities with their performance in the past, and also gives a news service on the same terminal.

Other commercially available services include Control Data Corporation's TECHNOTEC, which acts as an electronic market place for new technology. A range of services is provided by Computer Sciences of Australia, based on Australian Bureau of Statistics 1976 Census data and used for decisions on marketing, advertising, location of points of sales, and so on. The data for these decisions can be tabulated, or they can be graphically displayed on a large- or small-scale map, using a VDU screen or plotter - the INFONET plotter gives a 4-colour plot 80 cms high.

Similar services are provided by other firms like APASCO and Techway, and still others are being developed. The CSIRO Division of Land Use Research, for example, is now using a system it calls the Australian Resources Information System[4] to explore problems of resources, geography and land use. Data on climate, terrain, vegetation,

soils, dwellings, industry, manufacturing, cropping, roads and many other parameters can be brought together and displayed graphically superimposed on the appropriately scaled maps. The first exercise on ARIS will establish banks of prospective sites for various major industrial developments; later projects will look at horticultural regions, coastal surveillance and hazard areas of Australia. ARIS is not yet available for public use: whether it will be depends on whether the Division can solve the problem of retaining the revenue from such u[illegible]

Numerical data bases in science and technology are provided by CSIRO in thermodynamics, crystallography and mass spectra. Its recent agreement with the US National Institutes of Health provides access to another dozen numerical, factual or computational data bases of value to science and industry. It is worth stressing how far we have come already from the 1960s'-style bibliographic data base, which began as the tape from which the printed abstracts or indexes were composed, to intelligent systems which perform computation, plotting and a variety of display techniques to suit the purpose for which the questions have been put.

But the bibliographic systems themselves continue to increase in number and complexity: for example, the latest listing from Infogrow [5] has 48 Australian data bases in science and technology and a further 25 in financial, social sciences and statistical fields. This is certainly too low a figure: CSIRO has half a dozen bases which are not included, and there are others springing up all the time in the public and private sectors. Even so, 80 or 90 in Australia do not represent a great proportion of the world total of publicly available on-line data bases, now projected at over 600 and still accelerating.[6]

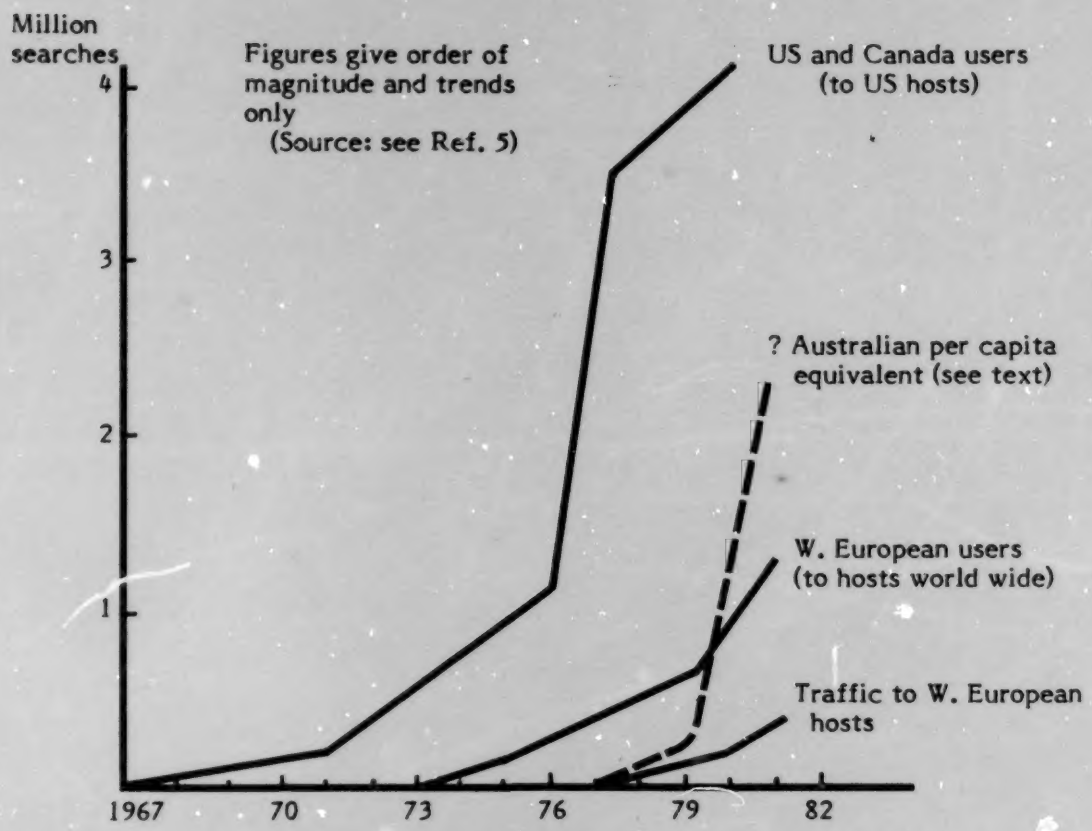
Overseas comparisons

Through MIDAS we are sharing in the overseas experience, even if that experience is not easy to quantify. L.J. Anthony of ASLIB [7] comments in the April '81 On-Line that "the on-line information world seems to lack any rational system for measuring the extent of its activity". With numerous caveats, he suggests that the UK may have an annual total of 125 000 searches a year. The best guess for North America still seems to be around 4 million a year, a little more conservative than former estimates. Where are we in Australia?

Let us be conservative and look just at MEDLINE, AUSINET and MIDAS (remember that CSIRONET still operates in batch mode, and is not all that widely available: CSIRO data bases get over four times as much exercise on AUSINET as they do on CSIRONET). MEDLINE, we know, is doing about 70 000 searches a year. AUSINET, with about 5 400 connect hours, has around 22 000 searches. MIDAS, with say 18 000 connect hours for information retrieval (35 000 hours all up, including corporate use), has about 70 000 searches a year, more or less. That makes 160 000 a year on those three networks,

ignoring everything elsewhere in the country. That is already more than Anthony's estimate for the UK, but on a per capita basis it is even more startling. If we had the population of the UK, that would be 600 000 (instead of their 125 000); if we were as big as the US, that would be 2 1/2 million instead of their 4 million (see Figure 2). (But they started before we did: on-line activity really took off in the USA in 1971, compared with 1975 in W. Europe and '78-'79 in Australia). The point I am making, with these order-of-magnitude figures, is that a lot of Australian users are performing a lot of searches: perhaps at a lesser rate than the Americans but certainly at a greater rate than in Europe.

Fig 2. No. of searches on Bibliographic Data Bases



Economics and the Information Industry

Much of the revenue from all this activity world-wide ultimately goes back to the information providers, you might think. At present this is not necessarily the case. While it is true that every MIDAS dollar requires you to pay another $3-4 to the US hosts, the part that goes to the US is split three ways: say $1 in royalties, and the rest divided between the host's computing charges and the telecommunications networks. Derek Barlow's [8] estimate of trends is that the cost of a search will stay about constant over the next five years, while royalties double and computing and communication costs come down.

Bear in mind that the costs of preparing a big data base are mainly on salaries (about 75 %) and at present most on-line services are still carried by the revenue from the printed indexes. If, as a result of the swing to on-line usage, large numbers of users stop subscribing to the printed indexes, what will happen? Harry Collier [8] has pointed out that the data base producers have to recover their costs or go out of business. He calculates that even though the costs of each search may stay roughly constant, the total costs to the whole user community may rise by a factor of up to four (because the royalties which go to the producer only amount to about a quarter of what the user pays for his search. With a smaller swing to on-line, or with a higher royalty to the producer, the total cost to the user community is less, even though the cost of the individual search may go up...). And in the middle, between the data base producer and the user, is an entire new industry, creaming off an estimated $ 1 1/2 billion a year at present, and heading for $ 5 billion a year by 1990. Is it any wonder that big publishers are buying information businesses, and big businessmen (even in Australia) are setting up new operations to develop expertise and watch what happens?

My third D was for Dependance: dependance by the user on these new tools and technologies and, most importantly, on the major data base providers, who are largely found in the USA. I mentioned earlier that for every MIDAS dollar that stays in Australia, 3 or 4 go overseas. The same sort of thing is true for MEDLINE: the National Library of Australia pays the US National Library of Medicine $32 000 a year and Biological Abstracts about $16 000 a year, and receives from users about $12 000 (in SDI profile storage fees), which it keeps. Obviously, this negative balance of payments only applies to the use of overseas data; services like AUSINET, or CSA census data activities, are entirely Australian in origin and use. I stress "and use", because once two-way MIDAS is operational, we may be able to start exporting some of these services on-line.

Indeed, we have been exporting some Australian data off-line for some years: Australian contributions in kind have brought us the total files of such systems as Selected Water Resources Abstracts, AGRIS, US Department of Energy and others. The future of some of these exchanges is currently in doubt because the growth of on-line working is reducing the traffic in tapes; this may have the unforeseen side-effect of limiting the exposure of some Australian research results in the world arena.

Other countries have a payments problem - the country closest to the USA, for example. The Minister of State for Science and Technology, of Canada, Hugh Faulkner, speaking in August 1977, [10] expressed concern over both the balance of payments problem which Canada experiences as a user of USA services, as well as the loss of social and political control that results when computer services leave Canada, and all services are imported. If the present loss of computer services continues over the next ten years, it is estimated that something like 30 000 jobs will have been lost.

European Policy and Developments

In 1979 the d'Avignon Report [11] on "European society faced with the challenge of new information technologies: a community response" drew the attention of the European Communities to the fact that the Western European countries then used about 25 % of the world data flow, but only supplied about 15 %: they had their balance of payments problem too. The d'Avignon Report is intended to be one of a series of reports identifying new sources of growth and employment in the countries of the Community, to offset the difficult adjustments that traditional industries are being forced to undergo. "The dynamic conflicts of information industries based on the new electronic technologies" were thought to offer a major source of such economic growth and social development. The actions proposed in the report call for the Community to:

- develop a social policy to prepare the climate for innovation;
- use the normative powers of the Community to create a homogeneous European public market for telematic equipment and services;
- promote a European information industry;
- foster industrial and user collaboration;
- enhance the value of national and European programs in the fields of satellite communication and detecting earth resources;
- apply the new technologies to the Community itself.

Not all members of the Community are pleased with these recommendations or the way they are being implemented. I was told that the UK thought that the action should come from within the Commission, but Germany thought the Commission should leave the industries firmly alone. The response of the Commission to these reports is likely to be from two ends: the crisis industries, such as steel making and textiles, and the growth industries such as the information industry.

One immediate action to promote more data base activity was a "call for proposals" by the Commission in November 1979, addressed to data base producers who were already developing products but needed an injection of extra money to become operational. To their astonishment they received 266 requests totalling $20 million, and representing $80 million already invested in these systems. Having only $2 million to spare, they picked a short list of 27; as of last month, 13 contracts have been placed, mainly for factual rather than bibliographic information.[12] The Commission is also concerned that only 12 % of data bases offered on Euronet DIANE ("DIANE" is the information service based on Euronet) are in the business sector, and would like to redress this deficiency, as they see it.

At this point it is worth reminding you that Euronet was always intended to be only a device to ensure compatible developments of the nine national packet-switched services,

to common standards, with distance-independant character-weighted tariffs (rather like MIDAS, in fact). Once this operational pattern has been achieved, by the end of 1983, "Euronet" will disappear as a separate entity, leaving numbers of hosts (already 32 connected), brokers and other service providers linked by the cooperating national networks. This forms part of the Third Action Plan, which was recently approved by the EEC Council of Ministers, and gives its highest priorities to the consolidation of the Euronet DIANE public on-line information service and to the accelerated development of high quality European data bases. What is more, there are $15 million in the Plan, to encourage these things to happen. The Commission was confident enough in its progress to begin withdrawing its resources from Euronet in 1979, even though Euronet DIANE was not inaugurated until the end of March 1980.

All is not quite plain sailing. Some of the national networks are lagging, and there was controversy over at least one of the hosts, DATA-STAR, which illustrates the complexities of the large investments now becoming visible in information services. Data-Star is operated by a consortium of Radio-Swisse (a semi-commercial firm wholly owned by the Swiss telecom) and BRS, whose software is used by Data-Star and marketed in Europe by Predicast. The BRS connection was seen by some members of the Community as "letting the US in through the back door". The implications spread further: Pergamon has links with Data-Star to use the BRS software. However, the Commission's view is that they welcome any host willing to sign the Memorandum of Understanding which embodies "both the spirit and content of the cooperation between the Commission and the centre with regard to Euronet".

Besides giving money for data base development, the European Commission is promoting new technology: its ARTEMIS report [13] just issued looks at the potential for digital text transmission as a means for document delivery. At the same time Pergamon, Springer and Elsevier announce that they are forming a consortium with the aim of creating a full text data base system of documents from which single articles could be produced on demand.[14] The BLLD is cooperating in these investigations. Some time ago the European Commission also announced its intention to offer off-line automatic translation of the references retrieved from Euronet DIANE. This would use the well-established SYSTRAN system, whose inventor, Dr Peter Toma was in Australia recently showing us examples of his text, which looked good. Before long it may be possible to get the full text of your documents retrieved in the language of your choice, by satellite, at your terminal instantaneously or overnight.

The Commission is understandably concerned to develop quick cheap translations: it has to translate a million pages a year within its own administration. It is working on a system of its own called EUROTRA [15], which it claims is already giving fully automatic texts that are 99 % intelligible and require less than 10 % revision, compared with

SYSTRAN'S 90 % intelligibility and 20 % revision rate. (Dr Toma says "Very good ... but not for 10 years"!) SYSTRAN has already proved its worth in major contracts for the US Department of Defence, and in other high volume high technology applications like engineering instruction manuals which are required in several languages.

Apart from EUROTRA, none of these developments depends on new technology: only on reaching technical and commercial decisions related to the anticipated markets. That forecast of $5 billion on-line turnover by 1990 indicates that the decisions could be to go ahead and do it, but the injections of big technology will come first in mass market areas, not in small markets like ours. (Mind you, communications now make the world one big market for this kind of product). In Australia it is likely that, as so often, the multinationals will call the tunes, at least at first, and we will be dependant on them through licensing arrangements or as subsidiaries. The corollary is that continuing growth of Australian data base activity will be needed to ensure that Australian R & D aimed at Australian applications does not drop out of sight entirely.

Australian Information Policy

Our 1 1/2 % of the world's R & D is precious to us, and with access to the other 98 1/2 % becoming easier all the time, more attention can be given to domestic concerns. How are we placed for the skilled manpower, the money and the markets to ensure the continued growth of data bases and information services? My guess would be that the training now becoming available in Australia is pretty good for these purposes: I do not think developments will be held up by shortage of people. The market has expanded explosively in Australia and looks as though it will still do so for new products, though perhaps more slowly for the present services: those figures for AUSINET and MIDAS seem to be hesitating a little in their upward flight. But Christine Newman's research, into why users of AUSINET, Lockheed and Orbit do what they do, has shown that on the whole they see such services as natural extensions of library reference activity, and are not too worried about costs - for example, they are not greatly influenced by offers of discounts to change their habits.[16]

One aspect of all this is the new in-house data base activity, some of which may eventually develop into exportable products once 2-way MIDAS is introduced. A group of LAA divisions in Canberra is trying to encourage this with a workshop next year, 19-21 April, on "The Generation and Management of Small-scale Data Bases", aimed at people who are wondering whether to get into data bases, and how to start. This is also aimed at developing countries in the region, many of which say their main obstacle to participation in regional activities is shortage of trained people. ADAB and the Department of Science and Technology (from its ASCA vote) have already given at least $11 000 to bring overseas participants to Canberra, and we are currently seeing more support from UNESCO and IDRC.

Some of our local data bases will be commercially attractive, and so may be supported by our Australian information industry operators. Others will not be: there will be some hard decisions on public sector support for uneconomic minority data bases in order that they continue to happen at all.

Collier makes the nice distinction between data bases produced for profit, for fun and from duty. His examples are the Science Citation Index (for profit), Chemical Abstracts (for fun - the American Chemical Society doesn't have to do it, nor does it have stockholders to placate if the profits aren't high enough), and MEDLARS (from duty). In Australia similar examples would be, say, CSA or MONITOR (for profit), the Australian Earth Sciences Information System (for fun - the Australian Minerals Foundation doesn't have to do it ... and Australian Science Index (from duty - CSIRO has commitments to information in its Act).

Who orchestrates these three groups of information providers? The answer, in most parts of the Western world, seems to be no one, although in many countries there is an attempt by governments to give services a nudge in what they think is the right direction, with a judiciously placed contract from time to time. This action is particularly well-developed in France at the moment: their Interministerial Mission for Scientific and Technical Information, MIDIST, seems very active in this way. Germany and the UK are not far behind. The USA was going great guns in the 1960s, before anybody else started: National Science Foundation money even helped launch the Institute of Scientific Information,* a prime example of a successful for-profit service. Recently those funds seem to be largely drying up, and the latest shock is the news that the Smithsonian Science Information Exchange, the longest-running research-in-progress information system in the business, is to stop, after 32 years' operation...

One reason for the shift from public to private sector services in the USA, which has been coming on for some years, (apart from cutbacks in government funding!) may be the strong organization of the for-profit producers into the Information Industry Association, which can help provide mutual support for its members and act as a strong voice vis à vis the government when required. The European Commission has prompted the establishment of a European Information Providers Association to do the same kind of job. Australia's embryonic information industry has no common voice as yet, although there has been talk of an Australian Information Providers' Association, which would include the for-profit, the not-for-profit and public sector operators.

* Interjection by Prof. Weinstock: "Wrong! The NSF provided funds to investigate the feasibility of producing a science citation index by computer. Eugene Garfield subsequently committed the already highly successful Institute for Scientific Information to launching SCI in 1964."

Lacking this, who coordinates development in Australia? Last February the Federal and States Ministers responsible for culture endorsed a Cabinet proposal to set up an Australian Libraries and Information Council, ALIC; the first moves towards calling the first meeting are now taking place. Whether ALIC will address this kind of problem remains to be seen... and yet, for example, AUSINET needs to know whether the Federal government is planning to plunge heavily into information services before it commits funds to its next phase of re-equipment, just as the public sector services have to be sure that if they encourage a private firm to take on one of their data bases, it will do so in a way that offers guarantees of continuing access for the public.

The public sector is likely to run into criticism whichever path it follows, if it runs its own data bases at a profit on its own networks, it will be accused of taking the bread and butter out of the mouths of the private sector. If it releases the profitable data bases to commercial operators and only runs the uneconomic ones, at a loss, it will come in for its customary jibes of inefficiency.

Another example: MIDAS seems as solid as the Rock of Gibraltar after only 2 1/2 years' of operation, but when its biggest customer decided to pull out last year and take a leased line instead, there was a fluttering in the dovecotes and questions about whether to continue. Who puts the user's viewpoint when such questions are being asked? We have all become very dependent on that MIDAS link.

Australia is fast reaching the point where informal chats among friends, which have so far been quite enough to keep the national information system on the rails, will no longer do. Profit, fun and duty all need some encouragement, and some kind of operational framework, to enable them to provide the services which will keep Australians in the forefront of information users, to the benefit of us all. Information policy in Australia will require a careful balance of overseas and domestic services, and of public and private sector activities, to ensure an orderly development of Australian information as a vital national resource.

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Glossary of Acronyms

ADAB	Australian Development Assistance Bureau.
AGRICOLA (see CAIN)	The CAtaloguing and INdexing data base of the US National Agricultural Library.
AGRIS	An international information system in the agricultural sciences, produced by the Food and Agriculture Organization of the UN, Rome.
ALBIS	Australian library based information system - the information networks proposed by the National Library of Australia in 1975.
ANSTEL	Australian National Scientific and Technological Library.
ANSOL	Australian National Social Sciences Library. (This and ANSTEL were formerly branches of the NLA).
ARIS	Australian Resources Information System.
ASCA	Association for Science Cooperation in Asia.
AUSINET	An on-line service operated by ACI Computer Services.
BA Previews (=BIOSIS)	The machine readable version of Biological Abstracts, Philadelphia.
BLLD	British Library Lending Division.
BRS	Bibliographic Retrieval Services Inc, New York.
CAIN (see AGRICOLA)	
COMPENDEX	The machine readable version of Engineering Index, New York.
CSA	Computer Sciences of Australia, which offers 1976 census data on the INFONET network.
ERIC	A machine readable data base from the Educational Resources Information Center.
IDRC	International Development Research Center, Ottawa.

INSPEC	Information Service in Physics, Electricity, Electronics, Computers and Control, London.
LAA	Library Association of Australia.
LOCKHEED	The operator of the DIALOG Information Retrieval Service, which now has more than 100 data bases on it.
MEDLARS	Medical Literature and Retrieval System, produced by the US National Library of Medicine.
MEDLINE	The on-line machine readable version of MEDLARS.
MIDAS	Multimode International Data Acquisition Service.
NLA	National Library of Australia.
NTIS	National Technical Information Service, consisting mainly of an index to US Government R & D Reports.
ORBIT	An information retrieval service with more than 80 data bases, operated by the US System Development Corporation.
RACI	Royal Australian Chemical Institute.
SCI	Science Citation Index.
SDI	Selective Dissemination of Information.
STISEC	Scientific and Technological Information Services Enquiry Committee, which reported to the Council of the NLA in May 1973.

THE AUSTRALIAN BIBLIOGRAPHIC NETWORK - ABN - HISTORY AND CURRENT DEVELOPMENTS

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History and authority

Sustained interest in shared cataloguing in Australia dates back to the mid 1960's and interest in national bibliographic services probably can be dated back to the 1950 UNESCO Conference on the Improvement of Bibliographic Services. The National Library of Australia's continuing involvement in shared cataloguing dates back to 1965.

Prior to the mid 1960's libraries in Australia made use of LC copy through the US National Union Catalogue and Australian and British cataloguing from BNB and ANB. Some subscribed to LC cards or proofs. Some made use of cataloguing-in-source records which resulted from experiments by the University of Melbourne and the publishers F.W. Cheshire Pty. Ltd., in the mid 50's. Even earlier the National Library had provided central cataloguing with cards for Angus and Robertson books from 1945-1952. A number of institutions such as the State Library of South Australia provided such services via book catalogues. The tentative efforts in this area however lapsed largely because of lack of support by the library community as a whole.

Discussions and work on central cataloguing and cataloguing-in-source involved not only libraries but also booksellers and publishers as the Melbourne University experiment with Cheshires indicates. The library supply firms of James Bennet and Geoff King (Kingsbridge) were active in the 1960's in urging the National Library to provide such services and the National Library was engaged in discussions during the early 60's with the Australian Book Publishers' Association on these matters. In 1965 the National Library sent John Balnaves to the United States on a Council for Library Resources grant to investigate central cataloguing, cataloguing in source and shared cataloguing.

In February 1966 [1] the National Library began an experiment in shared cataloguing with the Library of Congress which became formalised as a regular exchange of catalogue data on cards and which continues to the present day with the exchange of machine readable records. Australia was one of the first countries in the world to join in the L.C. shared cataloguing programme.

At about this time the National Librarian asked the Australian Advisory Committee on Bibliographic Services (AACOBS) to consider the matter and AACOBS called a conference of cataloguers in May 1966 to discuss central cataloguing services in Australia. One of the comments made was "Perhaps the National Library of Australia has to date hesitated to act unilaterally in this, fearing for historical reasons, lack of support from the other libraries of Australia". It was in fact for this sort of reason and also for the mixed success of the previous experiments that the Library took the matter to AACOBS and it can only have been pleased with the general reaction, including a specific resolution "that it be recommended to AACOBS that a National Agency undertake to make available cataloguing data from overseas". The seminar was also important because at it John Balnaves publicly brought together the strands of central cataloguing, shared cataloguing and the exchange of cataloguing in machine readable form, all critical to the stage we have now reached with ABN.

The Library had been given the power in its Act to work in this field. Emerging from the consideration of the Paton Committee Report which recommended the provision and development of a national bilbiographical centre as a function of the National Library the following provisions were included:

> "(c) to make available such other services in relation to library matters and library material (including bibliographical services) as the Council thinks fit, and, in particular, services for the purposes of -
>
> (i) the library of the Parliament;
>
> (ii) the Department and authorities of the Commonwealth; and
>
> (iii) the Territories; and
>
> (d) to co-operate in library matters (including the advancement of library science) with authorities or persons, whether in Australia or elsewhere, concerned with library matters."
>
> National Library Act, 1960, Section 6.

Australian Card Service and Australian MARC Record Service

An improved ANB entry was developed, partly to ensure a better service to the shared cataloguing programme and partly to support a national catalogue card service for Australian books, and this card service was offered from November 1967. At the end of 1969 the Library assumed the role of National Standard Book Numbering Agency (and from 1974 for the National Agency for the International Serial Data System which provides International Standard Serial Numbers).

In 1970 the Australian Card Service was extended to include catalogue cards for overseas publications. This service was based on the deposit set of Library of Congress cards received in return for the Library's participation in the shared cataloguing programme.

By the end of 1969, the Library was proposing the development of a national agency for bibliographical data in machine readable form. A preliminary Australian MARC specification was produced in 1970 and the final specification was published in 1973. The basis of such a service was an extension of co-operation between national agencies for the exchange of cataloguing data in card form to the exchange of cataloguing data in machine readable form. This became possible for Australia in 1972, when ANB was automated to provide, inter alia, for the machine readable record service.

The Australian MARC Record Service was introduced in 1974 and contained Australian, Library of Congress and British Library records. Its introduction was made possible with the encouragement and assistance of Libramatic Systems Pty. Ltd., which developed programmes for the service and acted as service bureau until the Library was able to provide its own computing resources.

By the mid 70's the National Library had well developed shared cataloguing programmes with the Library of Congress and the British Library and was providing central cataloguing services to libraries and booksellers in Australia.

The emphasis on the development of broadly based bibliographic services arises from Australia's heavy reliance on and use of publications from the large English language countries particularly from the United Kingdom and the United States.

Union Catalogues

Another major element in considering the need for a national bibliographic network was considered to be the union catalogue elements. The Commonwealth Scientific and Industrial Research Organization CSIRO and the National Library had developed union catalogues, the National Library commencing the forerunner to SALSSAH (Serials in Australian Libraries: Social Sciences and Humanities) in 1944 for serials and the National Union Catalogue of Monographs in 1960. CSIRO, however, in a far-sighted move, had developed union catalogues of scientific serials in the 1930's taking up work originally commenced at the turn of the century. Other union catalogues have been developed over the years by a range of institutions for particular materials or particular groups of libraries.

Both SALSSAH and SSAL (Scientific Serials in Australian Libraries) had been automated as batch systems by the beginning of the '80's. The need to replace the extremely cumbersome and staff intensive method of compiling the National Union Catalogue of Monographs (NUCOM) and the improved service on-line serial union catalogues could provide, were considerable incentives to the National Library in considering the development of a national on-line bibliographic network. This was highlighted by the difficulty or failure of some other union catalogues for other types of material.

A National Bibliographic Network

A national on-line bibliographic service was under consideration by the National Library from 1972. Such a service was seen as providing a more sophisticated tool for a much more widely extended shared cataloguing effort, as providing a national online data base and providing a greatly improved union catalogue tool. In 1975 a study team was set up to examine and report on the feasibility of such a system. Their report was published in 1976 as BIBDATA Network: a draft proposal for an Australian National Shared Cataloguing System.[2]

Public discussion of this proposal within the Australian library community established that there was widespread support for the general aims and objectives but it was apparent to the National Library and the library community that the very substantial costs of developing such a system ourselves was out of the question and at that time there was no suitable software available containing the features considered essential.

The Library evaluated six developing systems over the next few years.[3] Five were rejected for a variety of reasons. WLN software was tested and evaluated in the period April to November 1979 the Library having announced its intention to do so in January 1979.[4] It was decided on the basis of the evaluation to acquire the WLN software for its own purposes and as the possible basis for a national online system. The agreement of WLN to license the system was announced in a For Information[5] sheet on 21 February 1980. It was stated that the system was considered suitable both for in-house use and to support a major Australian bibliographic network.

On 31 March 1980 the National Library's General Cataloguing Section began cataloguing all monographs on ABN. A considerable training effort was mounted before that date to ensure that all staff were familiar with terminal use and use of the System. The Library's most recent card catalogue was closed on that date, although delinquent cards from the Australian card service for titles catalogued prior to that date continued to be filed in it for some time afterwards. The National Library has produced an in-house microfiche catalogue since then and also accesses the on-line system for more recent material and major searches. In June it announced a subscription service for the National Library Microfiche Catalogue which was initially published bi-monthly but later every third month. The first issue, April/May 1980, contained more than 6,000 records. The most recent issue January/March 1982 contained 121,330 records. The National Library at the time of the publication considered this a relatively short-term publication to be replaced by on-line catalogues and a microfiche ABN union catalogue. It was apparent quite early that the cost of frequent production of large microfiche catalogues would rapidly become uneconomic. In fact the publication ceased at the end of 1982 as NLA entries are included in the ABN union catalogue published half yearly from June 1982. For internal use the Library still produces a fiche catalogue but increasing use is being made of the

on-line service. Others can access the National Library's holdings via the ABN Union Catalogue or by on-line searches.

The National Library began cataloguing serials on the system in May 1981 and at the time of writing has begun to put in records for pictures, prints and photographs. Other specialist areas of the Library such as Manuscripts are examining the system with a view to adding manuscripts.

The Pilot Project

The implementation of the WLN software within the National Library made possible the mounting of a pilot project to test the system for networking purposes. A pilot project would allow the National Library to evaluate the capabilities of the software to support a national bibliographic network, to evaluate as realistically as possible the effects of operating a national bibliographic network upon the staff resources of the Library and on its computer capacity and to give a cross-section of potential ABN users the opportunity to access the system within their own institutions in order to assess its ability to meet their requirements.

The pilot project was scheduled to commence in February 1981 but one of the major problems which continues to be of major concern, the delays in installing data communication lines, meant that while the first line was installed at the beginning of February (to Adelaide) the last line was not installed to Melbourne until 10 May.

Pilot participants were:

Attorney General's Department Library
Australian Bureau of Statistics Library
CAVAL Ltd., Melbourne
Commonwealth Parliamentary Library
Office of Library Co-operation, Sydney
South Australian Library Network Group
University of Adelaide Library

This group included two formal consortia of academic libraries, a loose knit group of South Australian libraries and three special libraries. It should be noted that at the same time the National Library was fully operational on the system for monographs and during the pilot trial brought up serials on the system. It had also brought the Canberra Public Library Service (CPLS) fully onto the system. The CPLS was at that time attached to the National Library. This development included the conversion of CPLS's existing machine readable file.

Through the seven pilot participants over 20 libraries had an opportunity to use the system to a greater or less extent. Following the pilot project all but 2 participants in that pilot have joined the Network.

Consultations on an Australian Bibliographic Network

When it became apparent to the National Library that it had identified and could acquire a system which it believed would support an Australian Bibliographic Network, work began in earnest to identify the type of service which might be offered and the resources which would be needed to service the Network. Although the pilot project was delayed, it assisted in the later task and quite early in the pilot project's life the Library decided it could service the Network with a modest increase in staff, a relatively modest increase in its financial resources and an expansion of its computer hardware within a reasonable period.

To assist in discussions on the proposed network the Library developed a model which was published in Draft: Australian Bibliographic Network Services [6] and from July 1980 a team of people from Bibliographic Services and ADP Systems Branches visited several capital cities to discuss the proposal with groups representative of different types of libraries and organisations.

The National Library intended this as a genuine consultation on the shape of the Network and the librarians consulted responded very positively indeed. As a result of comments and criticisms a revised Draft proposal for the development of an Australian Bibliographic Network [6] was published.

Another outcome of the consultations was very welcome approval for the principle of the establishment of an Australian Bibliographic Network and the meeting of State and Federal Ministers in February 1981 gave the Federal Minister, unanimous support for the proposal. The Government, agreed to the proposal in its 1981-82 Budget. However, approval was given "within existing resources", that is, no extra staff or funds were allocated. The Library had calculated that it needed 15 staff to start the Network. In fact a number of staff had been seconded to the pilot project from other parts of the Library for some time. The Library decided to allocate slightly more, 9, for permanent positions in the ABN office, and the Networks Branch incorporating the ABN Office and the Life Sciences Network was established at the end of 1981. The funds for salaries had already been allocated by the library to the ABN pilot project and these funds together with receipts from network participants have covered the funds needed. It should be said in concluding this section that the Network formally came into being on 1st November and has so far exceeded all the National Library's predictions and hopes for the number of early participants.

It is quite clear that the Library over the years has, as a matter of policy, developed its bibliographic services in two mutually compatible ways. It has worked for the development of the shared cataloguing concept internationally and within Australia. Its invitation to join The Association of Bibliographic Agencies of Britain, Australia, Canada and the United States (ABACUS) in 1978 and the invitation to the Library Association of Australia and the National Library of Australia to nominate jointly a representative on the Joint Steering Committee for AACR have been notable recognitions of that work and the work of the Australian library community generally and have also extended further the possibilities for Australian work on standards in this area.

At the same time it has sought to apply the modern technological developments which make sharing of cataloguing increasingly possible and cost effective. It has to be said that this development has not been a smooth one. At times controversy has been aroused chiefly on the issue of the National Library's ability to provide the services. At times the library community and ourselves may have considered we were moving too slowly. Paradoxically a few think we may be moving too quickly.

It is also clear that there has been support for the Library's direction over the years and this has increased significantly in the past few years. There is an atmosphere of considerable goodwill for ABN. This in turn places on us a particularly strong motivation to maintain this goodwill.

Current State of the Network

By the end of January 1983, 14 months after commencement of the network, 48 libraries had officially joined the network for full use of the shared cataloguing system and were in various stages of connection from full operation to awaiting provision of lines and terminals. They represent:

1	National Library	
6	State libraries	(the seventh the State Library of Queensland has its own on-line system and it is intended to share data between the two systems).
8	Special libraries	
30	Academic libraries	
3	Public libraries	

Some of these participants, while counted as single entities have the potential to bring other libraries which they service into the system, for example the State Library of Tasmania intends initially to put up the State Reference library but is also looking to use ABN for some State Departmental libraries: and the State Library Board of Western

Australia is planning to bring the W.A. public library system on to ABN. At the end of January 1983 the data base included 2,350,174 total bibliographic records, 546,202 total holdings, 33,661 total original cataloguing, added by network members. 4 conversions of participants' existing machine readable catalogue files have been completed and the fifth encompassing about 430,000 holdings and 340,000 different records has just started.

Approval for ABN was given by the Government in the context of a prediction by the National Library that it would achieve full cost recovery in its fifth year of operation. The Government would subsidise the short fall in the intervening years. The first 15 months of operation have greatly exceeded the National Library's expectations for the Network and this indicates the possibility that cost recovery may well be achieved earlier provided computing and staff resources are acquired as needed.

Network Committees

An interim network committee was established and had its first meeting in December 1981 [7]. The Committee advises the Director General of the National Library on the operation of the Network. The committee was chosen by the National Library from nominations put forward by the Library community. It included 3 people from libraries which were members of consortia, and these included people from State, University, and Special libraries and from one consortium organisation. Representatives of the National Library and the Australian Library and Information Council (ALIC) were also appointed to the committee. The definition of a participant in the network has been under discussion during 1982 and hence the composition of the network committee has also been discussed. This has not yet reached finality.

The early work of the Committee was likely to set the direction of the network for some time to come so it was with particular care that the National Library have attempted putting the committee together to have a broadly based committee considering individual attributes, geographic coverage and coverage of types of libraries and consortia in working towards a fully elected committee. The composition of the committee continues to be a matter of discussion.

The first major task of the Committee was to rank the many jobs facing it in order of importance and then to commence work on them, early ones included an examination of the Committee's proposed terms of reference, consideration of a draft contract for the Network, consideration of the charging structure, allocation of priorities for systems and database enhancements and examination of proposals coming from the Network Standards Committee.

A number of matters came immediately to the Interim Network Committee from the Bibliographic Standards Committee which has been at work since July 1981. This

Committee was established to provide advice on standards for national bibliographic services and it has undertaken work on some matters of immediate concern during the pilot study. The Committee has been enlarged and now meets as the Networks Standards Committee. However, the National Library has asked this Committee to continue to act as advisor to the National Library on standards for all national bibliographic services rather than have two committees as many matters will be of equal concern to the Network and to the National Library's other bibliographic services.

The work of the Standards Committee has included; development of the concept of high and low level cataloguing standards for the Network, the higher level records bumping foreign national agency records as described above; decentralised review centres; commencement of work on subject headings and the development of guidelines for changes in Library of Congress Subject Headings; a single format for non-book material.

Initially the National Library selected the members of both Committees as they were established before there were formal members of the Network. Before the end of 1982 there were sufficient members of the Network to allow for members to be chosen by election. The elections were held for a proportion of each of the Network and Standards Committee with other nominated members to refer successively in 1983 and 1984 and to be replaced by elected members. This gradual process was undertaken to assure continuity in the committees which had undertaken considerably heavy work in the years 1981 and 1982.

The Committee has decided to hold the first ABN Conference in mid 1983 in association with the 2nd Annual Users Meeting. The Conference will allow participants to share the experiences of the first two years of operation of the Network.

ABN Office

Staffing positions for the Network Office were created at the end of 1981. Administratively ABN is placed, together with the Life Sciences Network, in a new Networks Branch headed by a Director. The administrative unit for ABN is called the ABN Office. There is an executive officer for the Network and other senior staff include a Chief Librarian for User Support, a Chief Librarian for Training and Documentation and a Chief Librarian for Bibliographic Control and an Administrative Officer. Senior librarians and clerical staff support these officers. The office started with 9 people and in addition a Director and a secretary. Four extra staff were gained by the office in 1982 and additional staff will be needed as the network grows.

The ABN Office staff are not the only people associated with ABN. A significant number of the staff within the ADP Systems Section are working continuously on the systems side of ABN. In addition the Library has a large corpus of expertise in systems,

cataloguing, networking and on-line services, which can and does provide advice and assistance with particular projects when needed. Work is proceeding on negotiations with libraries and consortia to bring them into the Network. The further development of standards, the improvement of documentation and training programmes, terminal support for the Network, an assessment of the current computer's capacity, and the monitoring and assessment of costs and charges, are also major preoccupations at this time.

Enhancements to the WLN software

In its For Information 18/82 (18th May, 1982) [8] the Library described some of the major improvements which it has made to the system since July 1981. Some of these improvements had already been identified by the Library as necessary. The need for others emerged during the early stages of the pilot project. Further enhancements have been made since. They include: improved record matching to avoid the unacceptably high duplication arising from matching incoming records from several national agencies; the production and publication of ABN Authorities, a quarterly microfiche of all verified forms of author, subject and series established by ABN participants (The January 1983 issue contained 255,216 headings); the provision of a copy information field, to partly counter the lack of a detailed holdings sub-system, automatic mapping to match incoming records to the ABN preferred term; the addition of a new field in the ABN MARC format to flag the high level network records; improvements to the programmes which process retrospective conversions; a move to the new version of the database management software, ADABAS 4.1. and from the IBM operating software previously used to the FACOM operating software OSIV/F4 both major tasks (the first was achieved with virtually no disruptions to users, the second did disrupt the system to some extent for about three weeks).

The Network Committee has determined priorities for enhancements to the system until mid 1983, though the enhancements are reviewed at each meeting. A significant amount of the programming time available to the Network has been allocated to improving the efficiency of the system but time has also been allocated for developing the Network to accommodate participants with more complex requirements, improving services available from the Network, improving the enquiry module and expanding the data bases. A large number of enhancements have been identified for future work.

In addition to work undertaken for the Network the National Library may undertake additional work for other national bibliographic services. Currently an examination of SALSSAH and SSAL the union catalogues of serials maintained by the National Library and CSIRO is underway to determine when and how best to move them from their current batch operations to the ABN system. An examination of the production of the Australian National Bibliography on the ABN system with the continued use of the existing ANB programmes for PRECIS is also underway.

In January 1983 a dial-up enquiry service for ABN became operational and the first twenty five of over 60 applicants are currently being trained to use the service.

Local interfaces study

A major local interfaces study, funded by the Australian Advisory Council on Bibliographic Services and the National Library was conducted by Gordon Undy of Information Sciences of Australia.[9] The objectives of the study were as follows:

"1.2 Objectives

The objectives adopted for the study are as follows:

1. In collaboration with potential users potential providers of service to users, and the National Library, identify and define a limited number of possible interfaces to ABN which
   (a) would enable the users for whom each interface is intended to gain effective use of ABN;
   (b) are feasible in the context of available technologies and institutional structures;
   (c) are acceptable to the Network Committee and the National Library as being within the scope of its responsibilities and its abilities; and which
   (d) provide sufficient information to be a basis for forward planning and communication within and between the NLA and the individual institutions or consortia.

   (Note: "Interface" as used above is seen to include a statement of inputs to and outputs from ABN, a broad description of the protocols associated with such input and output, and sufficient other information to provide an unambiguous statement of a modus operandi. At this point it does not mean that each "black box" has to be completely designed.)

2. It is likely that each interface considered will give rise to some needs which can only be met after further development or modification of either ABN software or policies. Whilst it is proper for the study to identify such needs if they arise it must not proceed on the expectation that they can or will necessarily all be met. That is to say that it should focus on interfacing with existing facilities within existing network policies and keep the need for required modification to a minimum. It is necessary
   (a) to attempt to ensure that there is a level at which the interface requirements can be met by ABN in its present state and to specify clearly what this level is; and
   (b) to identify where necessary a program of enhancements to ABN which would bridge any gaps between the available and desirable facilities. These should be prioritised where possible.

3. Each possible interface level will carry with it the implication so that a range of services will be provided by some "local" facility. The study should explicitly

   (a) identify the range of services which must and which might be provided by a local facility in order to supplement the services provided by the NLA at each level;

   (b) with the above in mind assess and comment on the feasibility of developing models of software and hardware which will assist the process; and

   (c) suggest procedures for such development which are likely to be affordable at the point of ultimate funding."

The study has been a useful document for those considering joining the Network.

New Zealand Bibliographic Network (NZBN)

Another major development in the use of WLN to support a national network occurred when the National Library of New Zealand decided to acquire the WLN software initially for the National Library's own purposes but also to support the development of a New Zealand Bibliographic Network (NZBN). With the agreement of WLN and the data base providors concerned the National Library of Australia has its version of the WLN software to the NZNL and also its database of LC MARC, CANMARC, UKMARC, AUSMARC, USGPO, ABN participants' original records, and some New Zealand records. The system was successfully installed and is now operational in the National Library of New Zealand. The National Library of Australia provided initial support for the training of National Bibliography staff from New Zealand and put the first NZMARC records up on ABN from the beginning of 1982 to assist the National Library of New Zealand in training its staff for automation and creating the beginnings of the NZMARC file.

The future of ABN

The initial aims of ABN were:

- to develop a comprehensive national database of machine-readable records for all types of library materials,
- to provide an enquiry system which permits the widest possible access to this national data base,
- to provide a range of products and services based on the national data base,
- to accommodate a range of decentralised services with a view to promoting the fullest possible use of the national data base,
- to develop an Australian authorities system.

The development of the Network within the National Library has ensured that the vision of the Australian Bibliographic Network is not limited to a shared cataloguing facility. The initial early good acceptance of the system as evidenced by the number of libraries joining the Network indicate that other possibilities exist for this Network.

Australia is, in population, a small country and its library resources are relatively small compared to those of the United Kingdom and United States. Nevertheless the Australian community needs access to the same range of information as any other country. Australian libraries have co-operated to some extent in collection building but the logistics of detailed work in this area has made this difficult. ABN will be a tool in co-ordinating collection building and is a particularly timely one as libraries funds are increasingly under pressure from cuts in government expenditure and high rises in the cost of library materials. Libraries will be able to verify bibliographic details and at the same time check holdings or on order notes and make an informed decision on whether or not to purchase an item.

The National Library of Australia as a national library has only recently been an acceptable concept to many librarians and the concept of the national collection in the National Library has achieved even slower acceptance though the collection is the largest in the country. But this concept, the writer believes, is being over-turned as the concept of the national collection being the holdings of all the libraries (including, ultimately, school libraries) of the country becomes a practical proposition. The Australian Bibliographic Network is available to all types of libraries and will be available in all States and Territories. This will make possible quite closely co-ordinated acquisition of library materials and is likely to make significant changes to the way libraries develop their collections. Access to all types of libraries' holdings on-line through ABN will take the concept of the national collection being the nation's total resources from the metaphysical to the possible.

These are some of the exciting prospects for Australia's bibliographic networks at the end of just fifteen months full operation.

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CURRENT ISSUES IN AUSTRALIAN PARLIAMENTARY LIBRARY SERVICES

R.L. Cope

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Australia, with a small population of almost fifteen million, is a much-governed country, for its federal system has bestowed on it one national parliament (the Federal Parliament), and the six states have maintained their own legislatures. The Northern Territory of Australia which acquired self-government in 1978, has a small legislature, and the Australian Capital Territory where the nation's capital, Canberra, is situated, has a small elected body, the A.C.T. House of Assembly with some of the features of a parliament. Apart from the A.C.T. House of Assembly, each legislature in Australia also has a parliamentary library, but these libraries vary greatly in size of holdings, in staff and in the extent of service that can be offered.

With the exception of the Tasmanian Parliamentary Library whose staff are officers of the State Library of Tasmania, each Australian parliamentary library has staff employed by the legislature and subject to the terms of employment existing in the respective parliaments. Some of the libraries are by Australian standards quite old, the oldest being that in New South Wales, the mother colony of Australia. It was founded in 1840 and is possibly the oldest official library with a continuous history in Australia. The largest parliamentary library in terms of staff is that of the Federal Parliament which has over one hundred and thirty personnel. The majority of parliamentary libraries now require their professional staff to have library qualifications as well as a university degree. This requirement has only come into general use since the end of the last war. In almost every case the management of the parliamentary libraries is under the supervision of a joint library committee consisting of a small number of members of each House of Parliament. (Only Queensland, the A.C.T., and the Northern Territory have unicameral legislatures.) The library committees vary in the degree of control they exercise over the management of the library, but they are all primarily concerned with matters of policy, including, of course, what services and facilities should be provided for members.

There are quite marked regional differences between the Australian Parliaments, reflecting the diversity of the states themselves. Some of the Australian states have small populations whose livelihood is predominantly rural, whereas others have a strong industrial base and a much larger population. The nature of the libraries reflects, of

course, the character of the legislature, but despite these differences which may be said to be differences of tempo and style, there is a considerable community of interest between them all, a willingness to co-operate, and certainly a growing esprit de corps which is centred on the belief that legislative librarianship can make claim to have a distinct identity with characteristics which distinguish it from other types of librarianship. The Australian parliamentary librarians have in recent years met biennially to deal with problems of mutual concern, to learn of developments occurring in the legislatures, and to discuss special papers prepared for the conference. In 1980 the conference held at Canberra was noteworthy in having participation from the Library of the Bundestag in West Germany, the Libraries of the House of Commons in Ottawa and at Westminster, and also of the Congressional Research Service of the Library of Congress, Washington: Dr. Wolfgang Dietz (Bonn), Mr. Erik J. Spicer (Ottawa) and Dr. K. Andrews (London) were able to be present in person. Attendance at the conferences by librarians of the legislatures of Papua New Guinea and New Zealand have long been a feature of these biennial conferences.

It is a noteworthy development of the last few years that most of the parliamentary libraries have benefited from either entirely new premises or from upgrading of existing premises. In New South Wales (Sydney) and Queensland (Brisbane) entirely new libraries have been provided in the last three years. The seriously overcrowded Federal Parliament (Canberra) is to have a sumptuous new building to be opened as part of Australia's Bicentenary celebrations in 1988. The Victorian Parliamentary Library (Melbourne) is the only major parliamentary library still with seriously inadequate accommodation. The provision of better accommodation has in most cases made it feasible for the parliamentary libraries to introduce new services adequate to the needs of the last quarter of the twentieth century and to expand and improve existing services. The Australian legislatures occupy, for the most part, buildings erected in an earlier era and ill-adapted to modern needs. This seems indeed a common difficulty throughout the world.

The Australian parliamentary libraries have quite substantial collections (in terms of Australian conditions) and possess in particular excellent runs of parliamentaria. They are often unexpectedly rich in literary and general serials of last century and some of them hold many valuable monographs, especially in the fields of English cultural history, Australiana, politics and government, and biography. In the Australian context they represent a book resource that is little known and scarcely studied. It should be added that nowadays these libraries no longer acquire on the scale that made them so noteworthy in an earlier age. The postwar era of mass education, with the creation of many tertiary institutions and the expansion of existing ones, has created many large libraries whose stock numerically overshadow that of the parliamentary libraries. These new libraries lack the organic collections of the parliamentary libraries, but such

collections respond to the needs of changing curricula, of growing student numbers and to alarming changes of direction dictated by political developments.

Having briefly set out some background details, I shall now deal with the topic of 'current issues' which confront these libraries as a class. It should be pointed out that they have individual problems also which will not be looked at here. Perhaps the most signal current issue is one which seems to be common to legislatures in most democratic countries: this is the decline in the prestige and the effectiveness of legislatures vis-a-vis the executive. There can be no doubting the severe limitations which the legislature now encounters in its relations with the executive, both in requiring accountability and in maintaining its own independence and status. Although there is still a considerable degree of claptrap talked about the present-day virtues and benefits of the Westminster system of parliamentary government, the reality is generally grasped by the public which sees parliaments as irrelevant in most things that count. The power of the executive is now so well established that there seems little likelihood of the legislature regaining the initiative it has forfeited through, it would often seem, its own ineptitude. The heart of the problem seems to lie in a significant shift of attitude amongst contemporary politicians who, paying lip-service to the 'supremacy' of parliament, consistently ignore or try to circumvent that 'supremacy' as soon as they gain the numbers to form a government. Cabinet ministers who treat parliament with scant regard are, when members of the opposition, loud in their defence of parliament's supremacy. Although the actors change, the play remains the same with the one exception that parliaments are playing roles of ever diminishing significance. This phenomenon is exemplified on different levels, but restricting our attention to the effect on the parliamentary libraries, we come to the crucial problem of the availability of executive information.

Whilst the parliamentary libraries generally receive all the printed and publicly distributed publications they require, the same cannot be said of the ministerial "handout", that is, information which is released to a selected audience. This particularly applies to releases made to the media. It is not uncommon for the press to receive prior copies of important reports, for the content of these to be published in mass-circulation newspapers, yet for the report itself to be unavailable to the legislative library. Nor is it unknown for departments to refuse to provide information which is available in its files. Perhaps freedom of information legislation will compel a change in this attitude, but most of the states have not yet enacted the legislation.

To regain the ground lost to the executive the legislature must strengthen its own capacity to gather data, to store, retrieve and, above all, to process it. Processing may take the form of analysis, of digesting, or of comparative collation. The data resources available to the executive are massive and steadily growing, whereas the legislative libraries cannot hope to rival these resources to any significant degree, especially since

the executive in most cases decides on the level of finance to be provided for the funding of legislative services. In the Federal Parliament a recent achievement has been for the executive to agree to a "one-line" budget, that is, it exercises no control over the distribution of the total sum voted for parliamentary service amongst the various parliamentary organs. The overall sum provided is, however, still in the hands of the executive.

As the issues which have been briefly outlined become clearer to the parliamentary libraries, their effect on library services and indeed on the nature of the libraries themselves will become more pronounced. Already these libraries have ceased to be what they were originally conceived as: collections of works of reference and of publications suitable for men active in public life, with cultivated tastes and with leisure to read widely. It is no longer possible to regard collecting of such materials as the purpose of such libraries. Collecting, which had unfortunately acquired in most Australian parliamentary libraries a self-justifying mystique, has had to yield willy nilly to a more positive orientation towards provision of information. More and more the parliamentary libraries are seeing their primary justification for continued existence in terms of an active information service. This orientation must inevitably lead to an assessment of the resources they have built up and of the policies necessary to support and develop the present role of these libraries. This question is gradually becoming a focus of consideration in all the Australian parliaments, and the realisation that parliaments do not need large collections of books but rather a first-rate information service is gaining strength.

The realisation that the parliamentary libraries must, in however a modest fashion, offer the members of parliament information resources which help to counterbalance the great advantages in resources enjoyed by the executive, has led to a variety of developments in the respective libraries. Various initiatives have been adopted to make the libraries more effective in their use of their existing personnel and materials, but they are all aware that the greater responsibility involved in an active role as a provider and even as a disseminator of information, requires an enlarged staff of a more varied and expert kind than was previously the case. One of the ways in which this enlarged sense of responsibility expresses itself is in the efforts the parliamentary libraries now make (and must continue to make) to anticipate political and social issues before they become the subject of parliamentary debate. Especially in libraries with a small staff it is essential that material be gathered well in advance of demands from members wishing to base their speeches on it. It is unfortunately the case that almost no parliamentary library in Australia has any prior knowledge of when bills are to be introduced before parliament. Sometimes bills are introduced with almost no warning and members, especially opposition members, may have little chance of making a factual analysis of what the bill proposes. If the bill is of a technical nature or proposes something novel members need

quite an amount of background material in order to be able to assess it properly. Since the government controls the parliamentary timetable, it is obvious that members can often be at a severe disadvantage if the parliamentary library cannot respond quickly (or as an ideal, be equipped beforehand to respond) to suddenly arising needs. Naturally these libraries may have to get information and documents from outside sources on some matters since they cannot maintain collections which are exhaustive. There is perhaps nothing very remarkable in this position: other types of library are confronted at times with similar situations, but possibly not with the urgency and sensitivity which can characterise the political context, and certainly not with the likely glare of publicity which frequently surrounds the actions and pronouncements of politicians.

Akin to the problem just described is the changing character of legislators themselves. Younger and newer politicians, better educated than their predecessors, more attuned to using libraries and to seeking out information, more apt to seek access to the media, especially to the instant exposure of television, are keener to make their mark as informed debaters. They are highly conscious of the importance of information, and their demands on the parliamentary libraries are correspondingly active. Of course they may soon become disillusioned with political life if the government allows its backbenchers only a limited scope to influence executive policy or to bring forward alternatives for the government's consideration. The opposition members are even worse off since they labour under continuing disadvantages. To some degree opposition members are uniquely dependent on the services of the library which exists primarily to serve their needs. The pressures which come to the libraries because of the nature of the new generation of parliamentarians are not altogether easy to describe since they vary considerably according to individual personalities, but the pattern of growing demand is quite discernible. There are indeed many instances of members, especially those coming from an academic background, expecting the parliamentary library to provide the services they have become used to in university libraries. It is a continuing issue facing the parliamentary libraries to make their users fully aware of what they can justifiably require of their libraries and what they cannot legitimately expect them to provide. This point leads to a wider consideration: that the parliamentary libraries must in future be more active in conveying to their users and to the parliamentary institution a fuller picture of what the libraries are striving to achieve and indeed of what their ultimate potential might be. The character of the libraries is itself changing, partly by conscious design but also in part as a result of pressures external to the libraries. Without wishing to analyse this development any further, it may be stated that here we have possibly the most crucial issue in Australian parliamentary librarianship of the present day. Those libraries are acquiring an importance and a self-consciousness which must upset the long established organisational structure of many legislatures where the library was deemed a very subservient element, without any claim to prestige or special consideration. This is a theme which will play an even greater role in the coming decade.

Springing from the present expanding role of the Australian legislative libraries is the need for an enhanced sense of responsibility, especially as regards objectivity in self-assessment. Standards of performance must be more critically reviewed if these libraries are to sustain their postion and their claim for a greater allocation of resources so as to expand their services. Techniques of self-assessment, including the basic economic facts involved in cost-benefit analysis, are now acquiring an urgency which until recently simply did not exist because the libraries were reactive to user demand, and had little dynamism or independent drive. One can foresee the time arising when libraries of different kinds may be in active competition for dwindling resources: the relationship of the parliamentary library to the legislature, often seen by outsiders as a decidedly privileged one, should be shown to be earned and merited by performance rather than bestowed by favour. In this set of circumstances one sees the emergence of a vital issue which will preoccupy the parliamentary libraries in the future. It is not, strictly speaking, a current issue, but it is one which is taking shape before our eyes.

Turning to more tangible issues, mention must now be made of the impact of modern technology on the work of the parliamentary libraries. They have until recent times been able to carry on their services with little need to introduce automation, but the growth in the availability of a wide range of data bases has changed this position. With the stress now being given to the information function of parliamentary libraries, they can obviously no longer do without access to the enormous electronically stored data files which are now so readily available. Only one Australian parliamentary library, that of the Queensland Parliamentary Library, has embarked on large-scale automation. It has created a comprehensive computer-based library service which is unique among the parliamentary libraries. The service was developed by the head and deputy head of the Library and its software, known as AIRS (Alemson Information Retrieval System, named after its deviser and the Library's deputy head, Mrs. Helga Alemson), is commercially available and in use in several other Australian libraries. The Queensland Parliamentary Library has been so remarkably successful in its use of the computer - it has its own IBM 34 computer - that the other parliamentary libraries are aware of how much ground they need to make up. There are naturally problems involved in electronic systems to suit the various demands and needs of the parliamentary libraries. On a wider front it is becoming clear that the legislatures themselves have been slow to recognise how computers can assist them in the management of the rapidly growing complexity of the parliamentary institution. To some extent the much proclaimed virtue of tradition which characterises our parliaments, has not been favourable to innovation. Major technological innovation is, however, planned for the new Parliament House now starting erection at Canberra. This Parliament has already spent considerable sums on surveys by consultants and both the library and the institution as a whole expect to be using a wide range of advanced electronic equipment when the new building is completed in 1988. The Commonwealth Parliamentary Library has indeed already been using word-processors,

visual display units, and other sophisticated equipment to carry out its traditional functions. It is about to use facsimile-transmission machines which it will also make available on a trial basis to some of the State parliamentary libraries. Apart from the libraries of the National Parliament (Canberra) and the Queensland State Parliament (Brisbane) most of the others have barely embarked on using automation and electronic data processing for library purposes. The New South Wales Parliamentary Library (Sydney) has commenced a trial on-line information retrieval project, but there is little to report on its experience yet.

Technology in the service of parliamentary librarianship opens up a wide field of discussion. It is a field which is not yet well understood by the parliamentary librarians (with a few notable exceptions), but it is one which is rapidly acquiring a degree of urgency. Many developments will take place in the next few years within all but the smallest parliamentary libraries and the issue of technology will continue to be of concern to them all from now on.

One particular aspect of technology which is now of considerable importance to the legislative libraries is the monitoring of television and radio programmes containing political comment. Since so many politicians are interviewed on television, it is now necessary for the libraries to obtain videotapes of the interviews and programmes. The Queensland Parliamentary Library has invested a considerable amount of capital in setting up its own media monitoring and recording unit. The parliamentary libraries in Canberra and Sydney have some capacity to monitor and record, but neither library as yet possesses the expertise or range of equipment held in the Queensland library. Electronic media monitoring is now a live issue of the legislative libraries which are on the whole ill-equipped in management terms to tackle it effectively. Pressures for them to take speedy action to implement monitoring services are growing and throw up considerable problems for the small libraries in particular. In several states the executive has developed an extensive monitoring capacity and makes materials available to the parliamentary library. In view of the remarks above about the predominance of executive power over that of the legislature, it will be realised that this means of providing media monitoring services has some undesirable aspects to it.

An issue of quite different character, but one which has relevance to the core of parliamentary librarianship is the ability of librarians to carry out what is called "research". As members of parliament grow more sophisticated in their needs for information, they find themselves requiring specialised information and even verbal briefing (which implies a certain didactic component). This can best be provided by subject experts. The relatively small staff of the state parliamentary libraries do not permit them to employ a special category of subject specialists to work side by side with the librarians. This is not the case in the National Parliament's library where a team of

highly qualified subject experts do "research" for members whilst the librarians do "reference" work and attend to the provision of printed material and ancillary tasks involved in a library service. The Queensland Parliamentary Library alone of the state parliamentary libraries has taken the step of having its staff upgraded as researchers (which brings better salaries for them), but it expects or encourages the researchers to acquire qualifications in librarianship. The issues become quite complex because of the confusion about what is meant by "research" and "subject expert". Members of parliament tend to regard as "research" any question they ask which involves finding information. In cases where members have been enabled to recruit a "researcher" to their personal staff, the researchers who may have specialised qualifications are not infrequently quite inexpert in using the information potential of the parliamentary library. There are some considerable difficulties involved in the employement within the parliamentary libraries of two categories of staff, "researchers" and "reference librarians", if the division between them is too strict, for the "researchers" will generally have a status superior to the "librarians", but they will often need to rely on the work of the librarians to be effective themselves. It is not unknown for "researchers" to be in fact less effective in a cost-benefit sense than the librarians. On the other hand, it is undeniable that the service traditionally supplied by librarians does not go far enough in meeting the changing needs of members for information of a specialist kind. It would seem that members need in some cases access to consultants to explain technical issues to them. Even if funds were available to hire consultants for a specific period there are various difficulties involved, not the least of which is the problem of non-partisan advice in what is a highly politicised environment. Members must equally not become the creatures of the expert, a situation which seems to occur, for example, in the U.S. Congress.

This whole question is decidedly vexed and it has the added difficulty of containing too many variables. Different solutions have been mooted and no one believes that there is only one ideal solution. Such questions as the career opportunities within the legislature for "researchers" must be weighed up also, for generally the researchers tend to be younger persons who may see working for parliamentarians as just a stepping stone to something better. The attitude of the parties must be considered, but those attitudes are influenced by the personalities of party members and by their past experience with individual librarians and "researchers". A growing literature on the question of specialist services to legislators now exists, but is generally directed towards national parliaments. The needs of the smaller state legislatures are just as crucial and this problem will continue to engage all those concerned for some time yet. If the librarians could also be experts (and vice versa) that would provide one solution, but the stumbling block is that librarianship does not normally attract the type of personality which is needed to become a subject expert in the fields relevant to members' needs. How specialised must one's knowledge be to qualify for such positions? The issue would lose some of its incisiveness

if the level of performance of the parliamentary libraries were to rise. There will always be cases where any library, even if it employs subject specialists as researchers will not have on hand the expertise needed for a specific request. Legislatures deal with a universe of issues: no legislature can hope to have available within its own walls the information resources and staff expertise to cover that universe.

The final continuing issue I wish to mention flows naturally from what has just been described. It is the subject of qualifications and education for parliamentary librarianship. In Australia there are no formal courses of education specifically for parliamentary librarianship. The skills are acquired on the job, although, of course, the qualification of professional librarian is gained by study at institutions offering approved courses. In earlier times the parliamentary libraries were staffed by persons who may have had an academic degree but no library qualifications. (Such qualifications were not available in general until the postwar era.) Nowadays the parliamentary libraries employ staff whose qualifications would be uniform with those in the public service performing the same kind of job. The salaries would in most cases be the same. The courses of instruction at library school include the study of official publications which are basic materials in parliamentary librarianship. This is of great benefit to aspiring parliamentary librarians but the knowledge gained is not usually very deep or even broad. Parliamentary librarianship requires practitioners who are conversant with a wide range of political, social and institutional factors which are not in normal circumstances the strengths of most librarians whose interests fall more commonly into the area of the arts and culture. It requires persons interested in politics, but who do not wish to participate in the political process personally. As parliamentary librarianship becomes more defined in its nature and scope, the question of the qualifications and education of its recruits will need closer attention. There has already been some informal discussion between the parliamentary libraries on the benefits of staff exchange and of training courses to tackle some of these problems. Whether anything can be done at an earlier stage to equip persons suitably for entry into parliamentary librarianship is yet another issue for the future.

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GOVERNMENT SPECIAL LIBRARIES IN AUSTRALIA

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Introduction

Almost half of the special libraries in Australia may be described by the term "government". This embraces libraries belonging to Australian federal government departments, statutory authorities, state government departments, parliaments, courts, commissions and any other government-funded bodies. The variety of subjects covered by this group of libraries is enormous - in Australia all public utilities such as transport, communications, health care administration, water supply and power supply are provided by government authorities at either a federal or state level (often both), and this, in addition to the functions of the civil service, ensures a multiplicity of in-depth subject collections.

Then, too, scientific and technological research is carried out by bodies such as the Commonwealth Scientific and Industrial Research Organization (CSIRO), together with state government bodies. Research collections dating back to the early twentieth century may be found in these libraries. Human medicine would be the only area not researched by government bodies - this seems to be the province of the universities and hospitals. Rural industries (plant improvement, forestry, agriculture, livestock, fishing and soil), mineral, energy and water resources; manufacturing industries; and some community services (environmental protection, flora and fauna) are the main areas of federal government sponsored research,[1] which require specialist information services in their support.

This brief background of government activities should serve to indicate the breadth of collection building in the libraries of these bodies, and the accompanying expertise which is thereby brought to special librarianship through the management and exploitation of this information resource. The recently published 'Directory of special libraries in Australia'[2] provides a statistical breakdown. Of the 881 entries included, 416 are government libraries. As one might expect the majority are located in the two most highly populated states, New South Wales and Victoria, with a concentration of federal libraries in Canberra.

Although their public source of funding is a common link, most government libraries operate as single entities, dealing with other libraries in similar subject fields as the need arises. Staffing levels, internal organization and services also vary between them. Several large networks of government libraries exist, such as the defence group of libraries belonging to the federal Department of Defence, spread across the country and coordinated by the Defence Central Library; and the libraries of CSIRO's 47 divisions and units throughout Australia, linked in an informal network by a Central Library.

There is no single standard by which to measure government libraries in terms of staff, accommodation or services. Staffing levels vary from 1 or 2 up to 30 or 40. Smaller libraries may be run by para-professional staff or a combination of one professional with clerical support, while larger libraries have a team of librarians and subject specialists organized into the traditional areas of acquisitions, cataloguing, loans and reference. Government libraries occupy a variety of buildings from old warehouses to new, especially designed quarters. Many of the older libraries, squeezed into now-inadequate areas, are finding space a problem and overcoming it by storing parts of their collections elsewhere. As for services, most government libraries, as indeed all special libraries, recognize the need for rapid dissemination of current literature (mainly from serials) and accordingly publish current awareness bulletins and display or circulate journals. Reference and inter-library loans staff are always busy!

Over the last five years, the main developments significantly affecting government libraries have included staffing and financial restrictions, advances in computer technology, access to overseas data bases and the advent of the Australian Bibliographic Network (ABN). All special libraries would have been touched by some or all of these changes, but this paper considers the way government libraries have responded.

Financial difficulties

Stresses on the Australian economy have increased and fluctuated since the mid-1970's, and government libraries have felt the repercussions in two major areas. Financial restrictions have resulted in staff numbers being either reduced or contained, and in a reduction in funds available for maintaining and developing library collections. Federal and state governments have adopted different approaches to ensure less spending. One method was to institute "staff ceilings" - an upper limit on the total number of staff employed in each department or body. Ceilings were reached through cessations and retirements, which meant that positions becoming vacant would not be filled, or were filled only after long periods of vacancy. As support staff seem to be more mobile in employment than professional grades, many government libraries were left with their librarians but without clerical assistance. Libraries whose staff remained stable still suffered through the reduction in operational funds.

Another method used was to simply lower or contain the total allocation of funds, which could then be spent as necessary on salaries or operations. Although this seems flexible, it is obvious that if staff levels were maintained or increased, little money would remain to carry out research, to provide a service or to continue the work of the body concerned. There are examples of larger libraries being reduced from 11 to 6 staff in three months, and from 21 to 8 after inter-departmental reorganization.[3] Librarians have had to keep services running if possible, and depending on their clientele, have either taken the "soft" option of maintaining loan and reference services at the expense of cataloguing and acquisitions; or the "tough" option of reducing or closing down those services which hurt their users.

Apart from the difficulties of maintaining an existing service with too few staff, the problem of not being able to purchase as much material as users require has meant that special collections are suffering in terms of breadth and coverage. Libraries previously able to purchase material in "fringe" areas of interest can now only limit themselves to "core" topics. In turn this has increased the volume of inter-library borrowing, which makes the load on under-staffed libraries even heavier. Government libraries have coped in a variety of ways, but mainly by only purchasing a minimum of material and by reducing any service not regarded as essential. The more fortunate library may have lost only a small percentage of its staff, be able to afford to purchase enough material to cover high priority needs, and manages to get by through falling back on the inter-library loan system.

Technological change

Automation of routine tasks is often seen as a way of coping with staff shortages. However, when neither financial backing nor adequate time to plan is available, computer technology has proved to be out of reach for many government libraries. Those who have been fortunate enough to introduce library automation have done so in three main areas - cataloguing, information retrieval and circulation or loans. Orders and serial accessions seem to have been more difficult or less desirable to automate, and total systems managed on a dedicated computer are either too expensive or not justifiable in most government libraries. In the smaller libraries where manual systems are still functioning adequately and whose budgets are small, advancing technology is a world away. Most federal libraries are subscribers to the DIALOG, ORBIT or AUSINET computerized information retrieval services. A small minority of federal libraries have neither automated information retrieval nor computerized housekeeping systems e.g. the Australian Taxation Office, the Department of Aboriginal Affairs, and the Department of the Prime Minister and Cabinet. The ratio seems to be the other way around in state government libraries, and is consistent in every state. Reliance on manual systems predominates here, perhaps because of the smaller scale (2 or 3 staff; 3,000 monographs; 200 journal titles), where the cost or need to automate cannot be justified for an

individual library. Some of the larger federal libraries have automated fiche catalogues, produced in-house or through a bureau. For the state government libraries and smaller federal libraries, networks offering automated shared cataloguing as a starting point seem a logical aim. In some states the government libraries are already organized in a way which would facilitate network participation. In Victoria, for example, the professional staff in the state government libraries are appointed to the State Library of Victoria, which devotes a senior position to the supervision of those libraries. The State Library, with its vast resources of material and expertise, therefore has a supervisory, advisory and supportive role in relation to these government libraries.[4] Possible co-operation and coordination via a computer-based network would be relatively straightforward in such a situation where informal communication and procedural channels are well established.

Some regional consortia have already developed amongst university, college and school libraries in Australia. The emergence in 1981 of the Australian Bibliographic Network from its pilot feasibility study to offer membership to all types of libraries is an incentive for smaller libraries. The on-line shared cataloguing facility of ABN, with a dial-up enquiry option, may be the answer for government libraries.

The CSIRO library network is an example of a group of libraries spread right across Australia which has managed to develop several computerized cooperative schemes. Each CSIRO library is self-contained inside the Division which it serves, yet is able to draw upon the Central Library for both advice and practical assistance. Some exist in relative isolation, others are clustered near urban centres, especially near the metropolitan areas. In 1980 the CSIRO library system employed 180 staff, managed an operating budget of nearly $2 million (excluding salaries and equipment), subscribed to 13,200 journals (costing $1.5 million), and maintained 1.5 million volumes in its collections.[5] Most of the libraries in this network would be staffed by 2-3 persons, carry 200-300 journal titles, classify according to UDC, accession their journals on a visible index, display them for 2-4 weeks and then circulate them.[6] The Central Library has maintained a Union Catalogue since the 1920s, and in 1977 work on the 500-drawer, 1/2 million-entry card catalogue stopped when an in-house automated batch-mode system was introduced. At first only Central Library input records to the COM-fiche catalogue, but in 1978 divisional libraries joined in. Now in 1982, nearly 50 libraries belong to COMCAT, the monograph union catalogue, and a small but growing number belong to COSCAT, the serial union catalogue. Although ABN (and some commercially available packages) are now offering on-line cataloguing, CSIRO libraries have enjoyed for some years the benefits of computerized shared cataloguing. CSIRO libraries have had their share of staff cuts and financial restrictions, and policies of earlier years of collecting widely in all fields of scientific research on behalf of the Australian scientific and library communities have had to be modified. Most library activities have been

affected, especially in the area of systems development. Services performed by Central Library are continuing despite staff shortages there. Central coordination of overseas monograph orders, automated serial subscriptions and an extensive exchange program with 6000 institutions around the world still benefit the network.[7]

Rationalization of services

While CSIRO libraries have the advantage of belonging to the one organization yet maintaining their own individuality and independence, federal and state government libraries do not have the benefit of common goals or "de-centralized coordination". These latter have no formal way of acting as a unit to air grievances or improve standards of staffing or service. As early as 1957 a Prime Minister's Committee had recommended greater coordination of library services to the Commonwealth Government.[8] As a result of discussions in 1978 at a seminar addressed by James Riley, Director of the U.S. Federal Libraries Committee, a paper was prepared in support of an Australian Federal Libraries Council. To date a council has not yet appeared despite much discussion, and the concept of formal machinery for coordinating the management and use of federal libraries is still a pipe-dream. As long as there is no federal model which achieves this goal it seems unlikely that state government libraries will follow suit. However, in Victoria, where there is at least some coordination through the State Library, there is a joint library (with 3 staff) - it serves the Premier's Department, the Treasury and the Public Service Board. New South Wales has a State Office Block Library (7 staff) to serve its Premier's Department, public works and local government. Tasmania has the State Offices Library (4 staff) to serve the Department of Construction, Department of Main Roads and the Rivers and Water Supply Commission. As shared cataloguing networks and perhaps centralised technical services groups develop, it is conceivable that more joint libraries of this nature will emerge to use a smaller but expert staff to manage many separately located collections. This is a possibility in government libraries because of the mobility of staff within federal or state public services.

Summary

The last five years have seen special libraries, and government libraries in particular, move from a norm characterized by card catalogues, manual indexing, adequate staff, reasonable budgets, "low-profile" management styles and security in the future, to the state of flux of the 1980s. The larger (and richer) ones have been able to take advantage of computer technology and have maintained an acceptable level of services despite staff and budget cuts. In the struggle to survive, government special librarians have shown a recent trend toward actively promoting their information services to both top management and regular users - a leaf taken from the stream-lined "information centre" image found in some private sector libraries.

It seems that the developments outlined in this paper - financial cuts, automation and networks - will create a wide gap between the libraries which continue to manage with traditional manual systems and those which have moved into automated systems or which belong to national or local networks offering advantages beyond the reach of individual libraries. Yet despite this, there is still the commitment in Australian government libraries to collect, organize and disseminate the information required by their users, and through widening possibilities for cooperation, to share this information with others.

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NON-GOVERNMENT SPECIAL LIBRARIES IN AUSTRALIA

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Australian Society of Accountants, Melbourne, Australia

Context of Development

To understand the role of the non-government special libraries in Australia a little must be said of the history, geography and economic development of the country. European colonisation commenced less than two hundred years ago. The earliest settlers were predominantly from the United Kingdom; thus the learned societies, manufacturing industries, the law and government, charitable and welfare organizations, and educational institutions are based on Anglo-Saxon models. The second feature is the influence of the United States from the 1940s onward on the development of Australian industries through investment, take-overs and the establishment of multi-national subsidiaries. Geography and economic development may be summed up, from the titles of two books - Geoffrey Blainey's, 'The tyranny of distance', [1] and Professor H.W. Arndt's, 'A small rich industrial country'. [2] Whilst these titles may appear paradoxical a brief glance at a map will explain the first - that is the distance from one end of the country to the other and the distance from Europe. A few figures may put the second title in perspective: Australia has a population of about 15 million in an area approximately 85 % of that of the United States which has a population of over 204 million. The United Kingdom has an area roughly the size of Victoria and Tasmania (the two smallest Australian States) but has a population over 5 times as large as the whole of Australia. A higher proportion, nearly 60 % of the Australian people live in large cities than in any other country. Almost two-thirds, as in other rich industrialised countries, are employed in offices, shops, schools, in public administration, professions and service industries.

In any discussion of special libraries the use of the term "special" must be defined. A broad view of what constitutes a special library and a special librarian appears in the first Chapter of the ASLIB 'Handbook of special librarianship and information work', 4th edition, in which the editor W.E. Batten writes "it will be convenient to use the term special librarian to denote any individual who is primarily engaged in creating or maintaining a selective 'collection' and applying it to the needs of some fairly circumscribed endeavour. The 'collection' may be something very different from the popular idea of a library, and such collections will be widely dissimilar amongst themselves. Their archival value, and indeed their intrinsic value, may be relatively low,

and the cares of mere custodianship may be light, but the value of a special collection resides in the wisdom of its selectivity and the ease and efficiency with which it can be used". [3]

Somewhat more pragmatically, the constitution of the Special Libraries Section of the Library Association of Australia defines a special library as "a library attached to a society, institution, association, government department, public utility or commercial organization, of which the subject field is determined by the interests of the body maintaining it".

History of Development

Special librarians have played an active part in the professional library scene. Following the establishment in 1949 of the present Library Association of Australia (LAA) (from an earlier Institute), the second President elected in 1951 was a special librarian, Miss M.E. Archer. In 1951 the Special Libraries Section of the LAA was formed, and currently some 20 % of members of the LAA are members of the Special Libraries Section.

The first "Directory of Special Libraries in Australia" was published by the Section in 1954. The national quarterly, 'Australian special libraries news',[4] was first issued in July 1967. In 1966 the New South Wales Division of the Section issued the first edition of 'List of translators and translation services in Australia' which has since been updated twice. Special Library 'Consensus standards' were published in January 1970. Mutual interest groups for Music Librarians, Law Librarians, Map Curators, Medical Librarians and Architects, Construction and Consulting Engineers (ACCESS) were established in the early 1970s. A Business Librarians Group has been meeting informally since 1976 in Melbourne. Some of these groups publish newsletters, other directories and all hold meetings and seminars to cater for the particular interests of their members.

A number of special librarians also belong to the Information Science Section of the LAA or to affiliated associations such as LASIE (Library Automated Systems Information Exchange) or VALA (Victorian Association for Library Automation), established in the 1970s to cater for librarians and others interested in automated systems in libraries.

Since 1974 the Section has organized biennial conferences for special librarians with a range of themes including "developments and evaluation of information storage and retrieval systems", "planning for better library management", "user education" and in 1983 the topic will be "resource sharing".

The need for specialized training for special librarians has long been an issue. When professional examinations were introduced in the 1940s by the predecessor to the LAA, the syllabus was considered by the Special Libraries Committee to be too generalized for

these librarians. Subsequent pressure from the Committee and later from the Special Libraries Section has resulted in relevant subjects being added to the syllabus of the professional examinations initially presented by the LAA and later under accreditation from the LAA in Colleges of Advanced Education or Institutes of Technology and in Universities. The same situation arose when courses were introduced into Technical Colleges to train the paraprofessional group known as Library Technicians. Again initiatives by the Section and its State Groups have ensured that there is now sufficient flexibility to ensure adequate training for technicians who work in special libraries.

Restricted by its Royal Charter the LAA cannot act for its members in industrial matters, but in 1974 it established an Industrial Information Service from which librarians and their employers could obtain information on salaries, conditions of employment and related matters. It soon became clear that the non-governmental special librarians, for the most part the only professional group not covered by any awards, unlike those in public service, local government, university and college libraries, needed practical assistance. Confidential salary surveys are conducted of the whole membership of the Special Libraries Section at regular intervals, comparisons are made between the salaries in the various employment sectors and "Recommended Salary Scales for Special Libraries - Private Enterprise" based on average "going rates" are published which can be used as a basis for negotiation.

The history and development of special libraries in the Australian context has been admirably covered in a book by Ada Winifred Johns, 'Special libraries; development of the concepts, their organizations, and their services',[5] published in 1968. Jean M. Murray's 1968 study, 'Special libraries in Australia: Non-governmental',[6] traces the history and development of this specific group of special libraries. Both books are recommended for further reading and have been used extensively, together with issues of 'Australian special libraries news', in preparing this brief historical outline of special library development.

Current Situation

The first 'Directory'[7] appeared in 1954 and listed 384 special libraries; by 1976, when the fourth edition was published, 858 were listed. A new edition[8] has recently been issued but due to a number of problems including a widespread postal strike a significant number of entries were not received in time for inclusion; for example 207 Victorian entries are listed but a further 80 entries are known to be missing and thus the listed 881 libraries do not represent the total currently operating which can confidently be assumed to be well over 1,000. By comparing the entries with those in local directories it appears that slightly over 50 % of special libraries are non-governmental. Broadly there are five major categories of special libraries: libraries in government agencies; special collections in public libraries; company libraries; non-profit association, society and

institutional libraries; college and university departmental libraries. Non-governmental applies to the third, forth and some of the fifth categories.

Because of the many different organisations in which non-governmental special libraries are found, the resulting variety in their objectives and therefore in the services they provide, it is difficult to generalise about them. This diversity is probably the reason why they receive so little attention in surveys of Australian libraries and, as a group in the professional literature. It is in these libraries that the widest range of classification systems are found and where highly specialised subject heading authority files are constructed. Dewey is still evident, UDC is frequently used and a number of the specialised systems in law, medicine, forestry, business, accountancy and architecture have their adherents.

To illustrate some of the variety of libraries represented sample entries from the current 'Directory' follow:

Allen Allen & Hemsley

Staff: 3. Reader seats: 9. LAA vouchers used.

MLC Centre
19-29 Martin Place
Sydney, N.S.W. 2000

G.P.O. Box 50
Sydney, N.S.W. 2001

TELEPHONE	TELEGRAMS	TELEX
(02) 2303777	ALLENS, Sydney	21641

HOURS 0900-1700 Monday-Friday
STOCK Monographs - 1900; Periodicals - 90, Looseleaf services - 90
NETWORKS Textbook catalogue stored on Sigma Data Datapoint System/
SUBJECTS Law - commercial/ Law - property/ Law - natural resources/ Law - tax/ Law - litigation/

Amalgamated Metalworkers and Shipwrights Union
National Research Centre Library

Established late 1960's. AMWSU is amalgamation of Boilermakers and Blacksmith, Sheetmetal Workers, Amalgamated Engineering and Shipwrights Union. Previously known as Combined Research Centre Library. Staff: 5. Classification: In-house.

136 Chalmers Street
Surry Hills, N.S.W. 2010

TELEPHONE	TELEGRAMS	TELEX
(02) 6989988	AMALSOYEN, Darlinghurst	Metsyd AA 23763

HOURS 1000-1600 Monday-Friday
NOTE ILL telephone requests accepted - prefer written requests. Student inquiries in writing or by appointment. A.V. inquiries to NSW Education Officer AMWSU.
STOCK Monographs - 4000; Periodicals - 350
NETWORKS In-house on-line information retrieval system/
SUBJECTS Industrial relations/ Economics/ Politics/ Trade unionism/ Occupational health and safety/

Australia and New Zealand Banking Group
Library

Established 1956 to meet the needs of the departments within the Banks Administrative Headquarters, particularly the Economics Department. Services include a library guide, monthly library bulletin, weekly S.D.I., bibliographies and online searches. Staff: 4. Seating for 4. I.L.L. provided. L.A.A. vouchers used.

7th Floor, Collins Place,
55 Collins St,
Melbourne, Vic. 3000

G.P.O. Box 537E,
Melbourne, Vic. 3001

TELEPHONE	TELEGRAMS	TELEX
(03) 6581263	ANZBANK	30112

HOURS 0900-1700 Monday-Friday

NOTE Access: by arrangement
I.L.L.: Telephone request readily accepted.

STOCK Monographs - 24000; Serials and Periodicals - 2450

NETWORKS AUSINET/DIALOG/ORBIT/

SUBJECTS Banks and banking/ Economics/ Finance/ Commerce/ Agriculture/ Management/ Mines and mineral resources/

Australian Medical Association
Victorian Branch

Established 1846. LAA vouchers used, telephone requests accepted. Staff: 3. Classification: Dewey - MESH subject headings. Photocopying provided for a charge.

293 Royal Parade
Parkville, Vic. 3052

TELEPHONE	TELEGRAMS	TELEX
(03) 478722	Melmed, Melbourne	32906

UNION CAT. VAMA

HOURS 0900-1700

NOTE Loans to Association members only.

STOCK Monographs - 11500; Serials - 170; Audiotapes - 250

SUBJECTS Medicine/ Medical history/ Medical Australiana/

Bird Observers Club

Specialises in ornithological literature for use of club members, available to students or institutions by appointment. Maintained at Honorary Librarians residence. No professional staff. Tapes and slides available through Headquarters.

c/- Howard Jarman
30 Waldemar Road
Heidelberg, Vic. 3084

P.O. Box 185
Nunawading, Vic. 3131

TELEPHONE	TELEGRAMS	TELEX
(03) 451845 or (03) 8775342		

HOURS 0900-1900
STOCK Monographs - 500; Periodicals - 60
SUBJECTS Ornithology/ Natural history/

Redemptorist Seminary

Established in 1892. Previously situated at Wendouree. Special collection of early printings (16th Century onwards) of works of the Fathers (Patristics). Classification: Dewey. Staff: 3 (part-time). Written ILL requests preferred.

10 Majella Court
Kew, Vic. 3101

TELEPHONE	TELEGRAMS	TELEX
(03) 802440		

UNION CAT. VR
HOURS 0900-1700
NOTE Access is restricted
STOCK Monographs - 40000; Serials - 90
SUBJECTS Theology/ Scripture/ Philosophy/ Church history/ Canon law/ Sociology of religion/

Wellcome Australia Ltd

Staff. 4. Reader seats: 5. LAA vouchers required. Classification. Dewey

53 Philips Street
Cabarita, N.S.W. 2137

P.O. Box 12
Concord, N.S.W. 2137

TELEPHONE	TELEGRAMS	TELEX
(02) 7369111	WELLAUST	22185

HOURS 0830-1700 Monday-Friday
STOCK Monographs - 1000; Periodicals - 280
NETWORKS DIALOG/MEDLINE/ORBIT/CSIRONET/
SUBJECTS Veterinary medicine/ Medicine/ Veterinary medical research/ Pesticides/ Industrial hygiene/

Faced with this diversity, discussion may best be divided between the two major groups - society libraries and company libraries.

Society libraries are found in the learned, scientific and technical societies, in professional, business and trade associations, hospitals, art galleries, religious organizations and in mutual interest clubs. These are the earliest recorded non-governmental special libraries, fifteen having been established prior to 1900 including the Royal Society of Victoria, 1854, the Linnean Society of New South Wales, 1874, Australian Medical Association (then known as British Medical Association) 1846 and the Field Naturalists' Society of S.A., 1883. To this day the collections of many of the learned societies' libraries remain as they began, of great value as a national resource containing unique sets of periodicals often complete for over 100 years but for the most part barely adequately housed, only partially recorded and managed by untrained part-time "honorary librarians". There are signs that the position is improving, however; for example, the library of the Royal Society of Tasmania is now housed within the Morris Miller Library of the University of Tasmania. In marked contrast are the libraries of the professional, business and trade associations. Whilst many of the older libraries, such as the Central Library of the Australian Society of Accountants (1888), have an archival function they are also service libraries for their members. These libraries employ professional staff and an increasing number are using in-house on-line information retrieval systems supplemented by appropriate Australian and overseas networks.

The term Company library is used for the libraries in establishments producing goods, services or ideas for profit which include manufacturing industries, newspapers, air lines, banks, retailers, architects, lawyers offices, accounting firms and advertising agencies. Industrial libraries are a twentieth century phenomenon; the earliest recorded in Australia include those of the Electrolytic Zinc Co. in Tasmania, of the Colonial Sugar Refinery Ltd., Australian Gas Light Co. and of Amalgamated Wireless (A/sia) Ltd. in Sydney, all established in the 1920s. An unfortunate characteristic of these libraries is that their activities are governed by the fluctuating fortunes of the organizations they serve, and in times of economic downturn may cease to exist or see their staff and budget severely curtailed. The era of unprecedented world economic growth, in the period from the end of the 2nd World War to the post-Vietnam recession of 1973-74, saw these libraries flourish but today many are faced with severe restrictions. Another limiting factor in the development of company libraries in Australia is the historical and continuing reliance of much of Australian manufacturing technology on research and development undertaken overseas. Today this can be an advantage as the Australian company's library can frequently establish on-line access to the overseas parent company's data bases and those of the appropriate industry research establishments.

Librarians working in this environment are on the whole the most active, innovative and forward looking in the profession - in the words of Grace M. Pertell in 'Special libraries', ".. librarians consider themselves an integral part of the management team and support the planning and decision-making process of the parent organization".[9] The geographical distribution of company personnel particularly in the resource development and manufacturing enterprises, combined with these potential users' need for accurate and timely information has resulted in maximum use being made of technological advances in communication. Thus in one company where exploration personnel may be thousands of miles away on site, each is provided with a personal microfiche reader and information is supplied on non-returnable fiche. Another company with plants and offices throughout Australia and South-East Asia produces a quarterly, annually cumulated catalogue on COM. In another, ways have been devised to deal efficiently with the unconventional material produced by field staff, such as well logs with related computer tapes, seismic records, aerial photographs, rock and fluid samples, cores and cuttings, technical data, correspondence, and thin-section microscope slides. As it is common for industrial libraries to be required to cover their costs from those sections of the organization using their services, selling their services and conducting user education programmes through visits to distance sites is an important function for the librarian.

In other company libraries such as those in the offices of the professions lawyers, accountants, architects and in banks, whilst a similar enthusiasm for on-line information retrieval is evident, traditional manual methods still play a major part in the provision of services, in part as the subject specialties involved do not as yet have the same variety of data bases available as do those in the scientific and technological fields.

Whilst special librarians tend to be much more information than book oriented they do still carry out the traditional tasks of selection, acquisition, cataloguing and indexing. Because they deal with a defined clientele, whose information needs are known, their service can be more specific and ongoing, and as a great deal of the service is provided to users who rarely visit the library the service must be sent to them. This is achieved at a basic level by the regular distribution of abstract bulletins compiled from periodicals indexed and accession lists from which users request loans. These publications are increasingly supplemented by SDI services, user specific bibliographies and on-line searches.

Conclusion

Special libraries in Australia are on the whole small libraries; non-governmental special libraries are said to have an average 1-2 staff members. Their librarians work in professional isolation within their organizations, and are separated geographically from their colleagues. One consequence has been a perceived need to create mutually supportive professional meeting grounds which are provided by the Special Libraries

Section of the LAA at the State level together with the special interest groups. The second is the extremely high degree of cooperation between the librarians themselves in meeting the information needs of their employers. If service can be said to be the main function of a special library, then service through cooperation can be said to be the main characteristic of non-governmental special libraries.

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COLLECTING USER EDUCATION MATERIALS IN AUSTRALIA: THE ROLE OF USER

Megan Lilly

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Chisholm Institute of Technology, Victoria, Australia

USER is an acronym for USer Education Resources: a bank of user education materials held at Chisholm Institute of Technology Library. As with materials banks in other parts of the world, USER was intended to be a resource for busy librarians - a source of ideas and inspiration for their user education programmes - and a way of keeping costs down. It was hoped also that USER would contribute to an improvement in the quality of user education materials produced in Australia.

History

A bank of user education materials in Australia was first proposed by Patrick Condon, Chief Librarian of the (then) Caulfield Institute of Technology* in Victoria, at a meeting in 1976 of the Association of Librarians of Colleges of Advanced Education (ALCAE). While it endorsed the concept, the ALCAE was not in a position to fund such a bank. Research on the proposal, therefore, continued slowly until funds became available through a New Initiatives Grant from Caulfield Institute and contact was made with banks in the United States (LOEX) and the United Kingdom (LIMB) in 1978.

Briefly, project LOEX (Library Orientation/Instruction Exchange) was conceived in 1971 and began operation in 1972.[1] LOEX collects and disseminates user education materials through its quarterly newsletter LOEX news. While subscribers to LOEX are encouraged to borrow materials deposited at LOEX, direct library-to-library contact is also encouraged through publication of 'help' and 'materials wanted' requested in LOEX news. There is no published catalogue of the LOEX collection - requests appear to be made to LOEX for particular items listed in LOEX news, or for 'something on' a particular subject or user education method. Material is selected by LOEX staff and sent to the enquirer. LOEX conducts surveys of participating libraries' user education programmes, and has been able to contribute valuable information on the trends in user education in the United States since the early seventies.

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* Caulfield Institute of Technology merged with Frankston State College in 1982 to form Chisholm Institute of Technology.

LIMB (Library Instruction Materials Bank)[2] collects print materials and descriptions of non-print materials for librarians in the United Kingdom. In Phase 1 of its development, LIMB produced lists of materials from its computerised bank for enquirers, who then approached the originating library. In Phase 2, multiple copies are held in LIMB and are distributed free of charge to enquirers. Unlike LOEX, LIMB was computerised almost from the very beginning, but a microfiche catalogue of the collection was not produced until September 1980.

Aspects of both LOEX and LIMB were used as models for USER, although the end product resembled LIMB more closely than LOEX. In 1979, Patrick Condon received a New Initiatives Grant of A$11,000 from Caulfield Institute of Technology and a Special Projects Librarian (Ms. Johanna Cook)* was employed for 6 months to design and implement an Australian user education materials bank. USER was launched in January 1980. It contained approximately 900 items, most of them from university and college libraries. A computer output microfiche (COM) catalogue was produced, and approximately 30 institutions subscribed.

The collection

As mentioned above, USER was originally intended to be a collection of materials from university and college libraries. In 1981, an effort was made to expand the scope of the collection to include public libraries. A broadening of the definition of 'user education' to include publicity materials and activities guides was necessary and USER now accepts and invites contributions from all types of libraries.

The collection includes all types of user education materials. (See Appendix 1). Material is shelved by accession code which comprises an amalgam of publication type, year of acquisition, and number of acquisition within that year - e.g. a subject guide received in 1982 may receive the number SUB/GDS 82-001. Requests for material to be lent from the collection are made by accession code.

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* Johanna Cook was responsible for developing the system described in detail later in this article. Any changes since have been of a practical, rather than a philosophical, nature.

Acquisition, cataloguing and retrieval

Material received by USER is catalogued on to data input sheets. The method of cataloguing allows for 22 category codes. (See Table 1.)

002	Accession number (e.g. SUB/GDS 82-001)
003	Title (optional)
013	Alternative name (i.e. 'SEE' reference to 014)
* 014	Personal author
015	Alternative name (i.e. 'SEE' reference to 016)
* 016	Institution (author affiliation)
017	Alternative name (i.e. 'SEE' reference to 018)
* 018	Corporate author
207	Edition
301	Country of publication; Publisher
305	Date
402	Collation. Price; (Series)
408	Source (citation of containing journal)
502	Abstracting works citations
503	Abstract/summary/notes
* 601	Publication medium (e.g. videotapes)
* 602	Publication type (e.g. Library guides)
604	Alternative name (i.e. 'SEE' reference to 607)
* 607	Descriptors/Identifiers
706	User category (e.g. Part-time students)
708	Location
709	Availability (e.g. restrictions on access)

* Of the 22 category codes or fields, 6 are used as access points on the fiche which is eventually produced.

TABLE 1: Category Codes for USER Material

There is no limit to the number of characters used per record, and there are only a few conventions which must be used to guarantee correct output - cataloguing is therefore a reasonably easy, if time-consuming, part of the data preparation process. (See Fig. 1: Sample data entry sheet.)

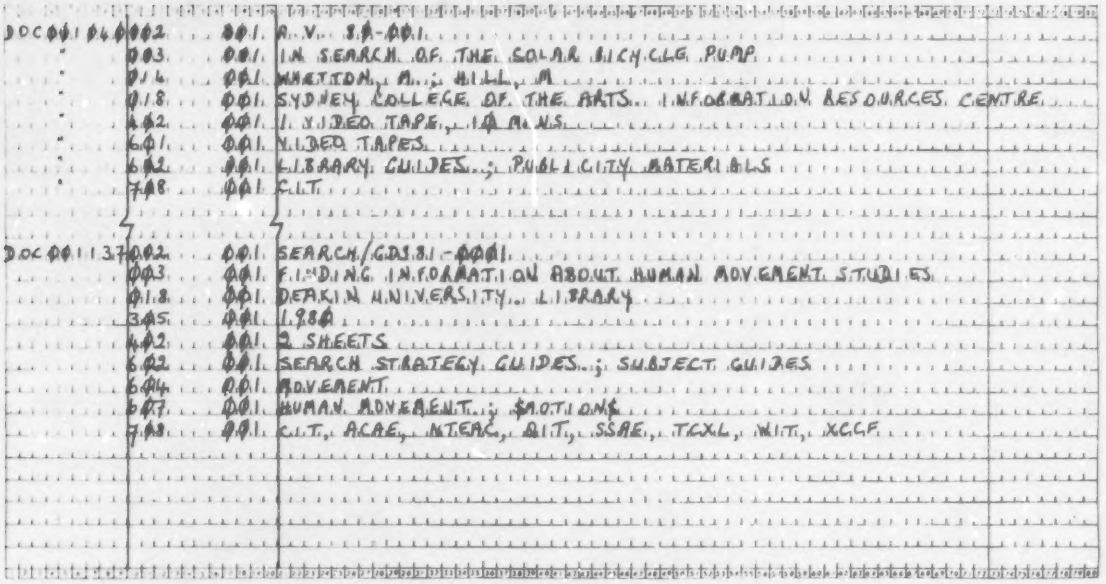
DOC 00 1 04 0002 001 A.V. 80-0001
003 001 IN SEARCH OF THE SOLAR BICYCLE PUMP
014 001 WHETTON, M.; HILL, M.
018 001 SYDNEY COLLEGE OF THE ARTS. INFORMATION RESOURCES CENTRE.
402 001 1 VIDEO TAPE, 10 MINS.
601 001 VIDEO TAPES.
602 001 LIBRARY GUIDES.; PUBLICITY MATERIALS.
708 001 CIT.
DOC 00 1 13 7002 001 SEARCH/GDS81-0001.
003 001 FINDING INFORMATION ABOUT HUMAN MOVEMENT STUDIES.
018 001 DEAKIN UNIVERSITY. LIBRARY.
345 001 1980.
402 001 2 SHEETS.
602 001 SEARCH STRATEGY GUIDES.; SUBJECT GUIDES.
604 001 MOVEMENT.
607 001 HUMAN MOVEMENT.; MOTIONS.
708 001 C.I.T., ACAE, NTEAC, QIT, SSAE, TCXL, WIT, XCCF.

Fig. 1 Sample data entry sheet

When several hundred items have been processed, the data is keyed into the Institute's Data General Eclipse C330, which the library has used for data preparation and storage for some time. Once keyed in and edited, the new material is added to the existing USER file and is spooled off. At this time, the data is in document number order only. The document number is a running number given to each item - it has no meaningful relationship to the material. The spooled data is sent to a computer bureau where it is run against a programme (STAIRS) which sorts the data. A "title page" and other identifying information is added at this stage, and the resultant sorted data is spooled off again and sent to a computer output microfiche (COM) bureau.

The fiche catalogue thus produced comes in 2 parts:

Author index - which lists all personal and corporate authors and author corporate affiliations (in one alphabetic sequence) with appropriate 'SEE' references; (See Fig. 2)

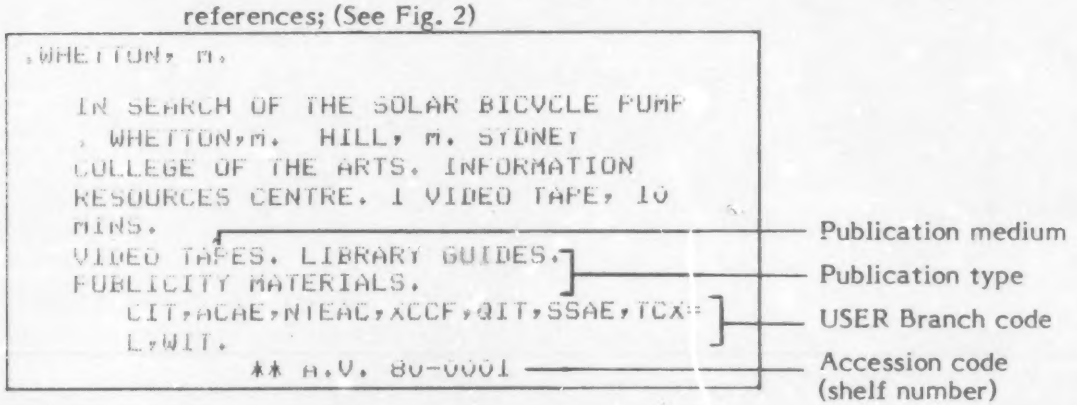

Fig. 2: Author Entry from the Fiche Catalogue

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Subject index - which lists all publication mediums, publication types, and descriptors/-identifiers (again in one alphabetic sequence) with appropriate 'SEE' references. (See Fig. 3.)

```
SUBJECT

-------------------------------------------------

. MOTION

   FINDING INFORMATION ABOUT HUMAN
   MOVEMENT STUDIES. DEAKIN
   UNIVERSITY. LIBRARY. 1980.  2 SHEETS
     SEARCH STRATEGY GUIDES.  SUBJECT
   GUIDES. HUMAN MOVEMENT. MOTION.
      CIT, ACAR, NTEAC, QIT, SSAE,
      TCXL, WIT, XCCF.
            ** SEARCH/GD581-0001

. MOTOR VEHICLES

   629-2 MOTOR LAND VEHICLES.
   FOOTSCRAY PUBLIC LIBRARY. 1977. 7 P
   . SUBJECT GUIDES. MOTOR VEHICLES.
      CIT, ACAE, NTEAC, QIT, SSAE,
      TCXL, WIT, XCCF.
            ** SUB/GD581-0024


   READ ON ABOUT : ECONOMIC STRUCTURE
   OF THE AUSTRALIAN MOTOR-CAR
   INDUSTRY. MACQUARIE UNIVERSITY.
   LIBRARY. 1 SHEET. SUBJECT GUIDES.
   MOTOR VEHICLES.
      CIT, TCXL.
          ** SUB/GD579-0343
```

Fig. 3: Typical Subject Entries on the Fiche Catalogue

As the category codes 'Publication type' and 'Descriptors/Identifiers' may contain more than one term, an item may have more than 6 access points on the fiche. However, regardless of the number of access points, the complete record of an item appears on the fiche at each and every access point.

The fiche catalogue also contains a listing of the terms used in the category codes 'Publication medium', 'Publication type' and 'Descriptors/Identifiers.'

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Authority files are maintained manually for eight category codes, namely:

002 Accession code;
014 Personal author;
018 Corporate author;
601 Publication medium;
602 Publication type;
607 Descriptors/Identifiers;
706 User category; and
709 Availability.

Category code 607 (Descriptors/Identifiers) is the code used to ascribe subject terms to items when appropriate. Where possible, the Thesaurus of ERIC Descriptors is used to select terms, although ERIC's hierarchy is used only selectively to choose 'SEE' references. 'SEE ALSO' references are not used. If a term does not appear in the ERIC thesaurus, or the term is not appropriate to Australian conditions, other subject thesauri and dictionaries are used. As mentioned above, a complete authority file, including cross references, is maintained manually.

Access to USER

Although maintenance of the USER collection takes place at Chisholm Institute of Technology in Victoria, access to browse the collection is available in each state and territory of Australia due to the establishment of branches in each capital city in 1980. Contributors to USER are asked to send nine copies of each item - after cataloguing one copy is added to the collection at Chisholm and one copy is distributed to each of the branches. The remaining copy is sent to LIMB in the United Kingdom as part of an exchange arrangement. Tape-slide and video programmes are transferred to master videos at Chisholm and copies are sent to branches. From the beginning of 1983, the USER collection at Chisholm has become available for loan to subscribers, free of charge, although borrowers are responsible for any costs incurred in returning the material.

There are two levels of participants in USER: contributors and subscribers. Contributors receive a copy of USER news, an irregular newsletter of snippets, news, and bibliographies which may be of interest to librarians involved in library instruction and promotion.

Subscribers to USER pay A$20 which covers one issue of the fiche catalogue and 6 issues of USER news, plus access to the USER collection for browsing or borrowing. In January 1983, there were 91 subscribers to USER. While the majority of subscribers are academic libraries, one third are from other sectors of the Australian library community. (See Table 2: Subscribers to USER, January 1983.)

Post secondary education institutions (universities, colleges of advanced education, colleges of technical and further education, etc.)	62
Secondary schools/community libraries	2
Public libraries	11
Special libraries	16

Table 2: Subscribers to USER, January 1983

The First Three Years

During its first three years of operation, USER has grown into a collection of approximately 1,500 items. 91 institutions subscribe to the fiche catalogue, and another sixty institutions have contributed material. Three editions of the fiche catalogue have been produced, along with six issues of USER news. Seven branches have been established, and valuable contacts have been made with similar data bases overseas.

Use of the collection at Chisholm Institute has not been heavy, although users have spent, on average, half a day each going through the collection. Since USER at Chisholm became borrowable in late 1982, requests for material have averaged one a week, with an average of ten items per request.

Although there has not been a systematic evaluation of USER's cost efficiency, USER is financially self-sufficient in terms of paying for data entry, fiche production and printing. However, it cannot pay for the staff time necessary to maintain the collection: time to prepare publicity, solicit contributions, edit USER news, catalogue material received, supervise data entry and fiche production, service loans, and other 'housekeeping' tasks.

The Future

USER has potential as a dynamic system. It was designed to be compatible with AUSINET (Australia's online searching system), but greatly increased usage would be necessary to make an online version of USER financially viable.

At the end of 1982, Chisholm Institute Library signed a contract with Data Phase for an automated library system which will be run on a Data General MV6000. The feasibility of loading USER on to this system will be investigated in 1983, especially the possibility of reformatting the data and making the collection available through the system's public access terminal. By the end of 1983, USER's future should be clear. Until now, Chisholm Institute Library has donated staff time sufficient to enable USER to tick over. In 1983, this time will be expanded and regularised to one man-day week. Lack of systematic attention has been the major reason for USER's slow development over the last three

years. With this problem overcome, we hope it will be possible to improve production of USER news by regularising production and increasing frequency, and thereby to improve communication with our potential users.

As mentioned above, no attempt has been to study USER's cost efficiency, certainly not in terms of usage. However, it is apparent that the collection is not used to anywhere near capacity, and that USER's objectives have hardly been fulfilled. If significant improvement in usage is not achieved by the end of 1983, serious consideration will have to be given to the continuation of the project.

References

1. For a full outline of LOEX's development and activities see -
   KIRKENDALL, C. A. Library user education : current practices and trends. Library trends, 29 (1) 1980: pp. 29-37.

2. LIMB's methods are described in -
   MALLEY, I. Library Instruction Materials Bank. Aslib proceedings, 30 (7) 1978: pp. 271-276.

3. USER is described in -
   CONDON, P. & COOK, J. USer Education Resources : USER. New Zealand Library Association Conference, Wellington, New Zealand, 1980.

APPENDIX 1

Accession Codes with Corresponding Publication Types used in USER

Accession Codes	Publication Types
A.V. 82-001	Not specified for browsing purposes or for listing on fiche catalogue
ACT/GDS 82-001-	Activities Guides
ANN/REP 82-001-	Annual Reports
BKRV/GDS 82-001-	Book Review Guides
CAT/GDS 82-001-	Catalogue Guides
CLASS/GDS 82-001-	Classification Guides
EV/FMS 82-001-	Evaluation Forms
EX 82-001-	Exercises
FL/PLNS 82-001-	Floor Plans
FLB/GDS 82-001-	Library Guides (Faculty)
GVT;PUB/GDS 82-001-	Government Publications Guides
IND/GDS 82-001-	Indexes & Abstracts Guides
LECT 82-001-	Lecture Outlines
LIB/GDS 82-001-	Library Guides
LOC/GDS 82-001-	Locator Guides
MIC/GDS 82-001-	Microforms Guides
MISC 82-001-	Miscellaneous (necessary in many many classification schemes!)
MON 82-001-	Monographs
PAT/GDS 82-001-	Patent Guides
PER 82-001-	Periodicals
PER/GDS 82-001-	Periodicals Guides
PUB 82-001-	Publicity Materials
RD/GDS 82-001-	Reading Rate Guides
RES/GDS 82-001-	Research Guides
RF:BKS/GDS 82-001-	Reference Books Guides
SEARCH/GDS 82-001-	Search Strategy Guides
SRV/GDS 82-001-	Services Guides
SUB/BIB 82-001-	Subject bibliographies
SUB/GDS 82-001-	Subject Guides
TEACH 82-001-	Teaching Handouts
TOURS 82-001-	Self Guided Tours

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